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Vocational Education Improvement Act Amendments of 1967; Hearings before the General Subcommittee on Education..on HR. 8525 and Related Bills..Held in Washington, D.C., April 12, 13, 17, 1967. Part I.

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Testimony relative to the Vocational Education Improvement Act Amendments of 1967 as given in three Committee sessions is presented in the form of verbatim oral questions and answers, prepared statements, letters, and supplemental materials. Major prepared statements were by (1) Harold Howe II, (2) Grant Venn, (3) The Division of Adult and Vocational Research, US. Office of Education, (4) the Division of Vocational Education, New Jersey, (5) Bruce F. Davie, (6) Lowell A. Burkett, (7) Burl R. Shoemaker, (8) Philip W. Seagren, (9) George Brandon, (10) Catherine T. Dennis, (11) Everett P. Hilton, (12) Division of Vocational Education, Ohio, (13) Kermit C. Morrissey, (14) Frederic S. Cushing, and (15) the National Education Association. The text of HR. 8525 and a summary are provided. Major sections of this bill deal with (1) increased authorization of funds, (2) exemplary and innovative programs and projects, (3) work study programs, (4) residential vocational education schools, (5) teacher fellowship and exchange programs. Other hearings on this same legislation are reported in VT 006 272 and VT 006 273. (EM)

C.1

VOCATIONAL EDUCATION IMPROVEMENT ACT AMENDMENTS OF 1967

HEARINGS

BEFORE THE

GENERAL SUBCOMMITTEE ON EDUCATION

OF THE

COMMITTEE ON EDUCATION AND LABOR
HOUSE OF REPRESENTATIVES

NINETIETH CONGRESS
FIRST SESSION
ON

H.R. 8525 and related bills

A BILL TO AMEND THE VOCATIONAL EDUCATION ACT OF 1963

HEARINGS HELD IN WASHINGTON, D.C., APRIL 12, 13, 17, 1967

3a PART 1

Printed for the use of the Committee on Education and Labor
CARL D. PERKINS, *Chairman*

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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VOCATIONAL EDUCATION IMPROVEMENT ACT AMENDMENTS OF 1967

WEDNESDAY, APRIL 12, 1967

HOUSE OF REPRESENTATIVES,
GENERAL SUBCOMMITTEE ON EDUCATION
OF THE COMMITTEE ON EDUCATION AND LABOR,
Washington, D.C.

The subcommittee met at 10 a.m., pursuant to notice in room 2175, Rayburn House Office Building, Hon. Roman C. Pucinski, presiding.

Present: Representatives Brademas, Carey, Meeds, Scheuer, O'Hara, Hawkins, Gibbons, Quie, Goodell, Scherle, Dellenback, Esch, and Steiger.

Staff present: Margaret Sugg, staff assistant, and Mattie Maynard, clerk.

Mr. PUCINSKI. The meeting will come to order. I will first recognize Dr. George R. Balling of Chicago.

Dr. GEORGE R. BALLING (assistant superintendent in charge of Federal and State relations). We present this gavel to Congressman Pucinski in behalf of the Chicago public schools. Chicago is proud of Congressman Pucinski's leadership in support of school legislation. We believe it is very fitting that he open these hearings today with a gavel made from material which has long been associated with school activities, and particularly with vocational education. We are confident that the work of Congressman Pucinski's subcommittee will result in legislation that will make vocational education opportunities available to many more youth and adults.

Mr. PUCINSKI. First of all, I would like to thank Dr. Balling and the people from Chicago for this very attractive gavel which has been presented to me this morning. It was made by a student at one of the vocational schools in Chicago out of some wood that comes from one of the first vocational schools in Chicago, the Jones Vocational School. The original school has just been torn down and we have put up a new vocational school in Chicago's Loop for training young women to become stenographers.

I want to thank you for this gavel. I know this gavel is going to help us conduct these hearings and bring out the kind of legislation we need in this very important field.

It is my pleasure to welcome you to the opening of hearings on the revision and extension of the Vocational Education Act of 1963. Although this is my first year as chairman of the General Education Subcommittee, this is my ninth year of active involvement in this extremely important field of educational legislation.

I would like to assure you that it is our intention to conduct these hearings as extensively, fairly, and productively as possible, without duplicating the fine work of this subcommittee during the last session.

I have a splendid example to emulate in the conduct of my predecessor, the Honorable Carl Perkins, who chaired the excellent hearings that were held last year on vocational education.

I am certain that every member of this committee recognizes and takes very seriously his commitment to education in this country, and that we are acutely aware of the vital importance of the legislation before us. Congress has many and varied responsibilities, but there is nothing that we in Congress do that has a greater impact or a more positive power for national progress than the work we do in the field of education.

It will do us no good to build giant computers if we cannot equip people to use them intelligently and productively. It will do us no good to go to the moon if we cannot put this knowledge to use for the national good.

However, America has become so obsessed with the need for college education that the need for the vocational and technical training of millions of youngsters who will never go to college too often is treated like a stepchild.

I sometimes think that parents, educators, and society in general overemphasize the notion that college is the only door to success in life. More often than not, we do so at the expense of youngsters who are quite realistic about their goals, ambitions, aptitudes, and abilities. Benjamin H. Baldwin, a journalism professor at Northwestern University was recently quoted as saying:

> We have kids who are going to be lousy engineers, but who would have been great mechanics, but Daddy can't let his son be a blue-collar worker.

In the technological revolution which this generation is experiencing, the need for giving youngsters who will not enter the professions adequate training in skills and trades is more essential than ever before.

Our society must make it possible, and just as important, for a youngster to become a skilled refrigeration mechanic, electrician, television repairman, sheetmetal worker, data processing expert, secretary, salesman, machinist or a practical nurse—it must become just as easy for this type of education to take place as it has become for youngsters to go to college.

But first we must upgrade the status of our vocations as we did, years ago, our professions.

It is imperative that we recognize that it is our responsibility to restore and, in fact, instill pride in subprofessional employment and to work to alleviate the onus of second-class status which has become attached to too many of our young people who will not attain a bachelors or masters degree.

We must mobilize not only our schools, but industry, labor and all segments of our society to achieve this goal. Improving and expanding vocational education is, in my judgment, one of the most critical issues before the 90th Congress.

The legislation before us today may well become one of the most important bills to be enacted in this Congress.

Vocational education holds the key to the door of opportunity—both individual and national. It is the purpose of this committee to assure that the Federal-State-local program is as perfect and effective as possible.

If this can be accomplished, if the needs of our non-college-bound young people are met, if they receive training in a marketable skill, we can look ahead to the day when emergency, corrective programs such as the Job Corps can be phased out.

The magnitude of our challenge in developing an effective vocational education program in America is perhaps the best dramatized by the "revolution" which has taken place in this country in the last 10 years.

In 1956, 57 percent of the American labor force was engaged in production work and 43 percent was engaged in the service industries.

Last year—10 years later—the figures were exactly reversed with 57 percent of the labor force now employed in services and only 43 percent in production.

These figures clearly show the need for preparing young people entering the labor force in America to take their place in highly skilled production work and the ever-increasing service trades of the Nation.

One final word—it is my hope that these hearings will develop an improved formula for establishing "residential skill centers" throughout the country. Our minority colleagues have suggested "residential skill centers" as a substitute for the Job Corps in the antipoverty program.

We already have authorization in the Vocational Education Act of 1963 for the establishment of such "residential skill centers." As a matter of fact, there are two excellent demonstration projects already in existence.

I invite our minority colleagues to join us in the majority in jointly expanding and improving the existing program in the legislation here before us today—where I believe this concept properly belongs—so that we can indeed help significantly upgrade the status of vocational education in America.

Please insert bill H.R. 8525, at this point.

(The bill and summary follow:)

[H.R. 8525, 90th Cong., first sess.]

A BILL To amend the Vocational Education Act of 1963

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Vocational Education Improvement Act of 1967."

INCREASE OF AUTHORIZATION FOR CERTAIN EXISTING PROGRAMS

SEC. 2. Section 2 of the Vocational Education Act of 1963 (20 U.S.C. 35a) is amended by striking out "and for the fiscal year ending June 30, 1967, and each fiscal year thereafter, $225,000,000," and inserting in lieu thereof "for the fiscal year ending June 30, 1967, and for the fiscal year ending June 30, 1968, $225,000,000, and for the fiscal year ending June 30, 1969, and each fiscal year thereafter, $400,000,000,".

EXEMPLARY AND INNOVATIVE PROGRAMS OR PROJECTS IN VOCATIONAL EDUCATION

SEC. 3. Section 4 of the Vocational Education Act of 1963 (20 U.S.C. 35c), is amended by inserting at the end thereof the following new subsection:

"(d)(1) There are authorized to be appropriated $30,000,000 for the fiscal year ending June 30, 1968, and such sums as may be necessary for the four succeeding fiscal years, to be used by the Commissioner for making grants to or contracts with State boards or local educational agencies for the purpose of stimulating and assisting, through programs or projects referred to in paragraph (3), the development establishment, and operation of exemplary and innovative occupational education programs or projects designed to serve as models for use in vocational education programs. The Commissioner also may make grants to other public or nonprofit private agencies, organizations, or institutions, or contracts with public or private agencies, organizations, or institutions, when such grants or contracts will make an especially significant contribution to attaining the objectives of this subsection.

"(2)(A) From the sums appropriated pursuant to this subsection for each fiscal year, the Commissioner shall reserve such amount, but not in excess of 2 per centum thereof, as he may determine and shall apportion such amount among Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Trust Territory of the Pacific Islands, according to their respective needs for assistance under this subsection.

"(B) From the remainder of such sums the Commissioner shall apportion $150,000 to each State, and he shall in addition apportion to each State an amount which bears the same ratio to any residue of such remainder as the population aged fifteen to nineteen, both inclusive, in the State bears to the population of such ages in all the States.

"(C) Any amount apportioned to a State under this subsection for any fiscal year which the Commissioner determines will not be required for grants for programs or projects in that State during the period for which such apportionment is available shall be available for reapportionment by him from time to time to other States in accordance with their respective needs.

"(D) For the purposes of paragraph (2) (A) and (B) of this subsection, the term 'State' does not include Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Trust Territory of the Pacific Islands.

"(E) The population of particular age groups of a State or of all the States shall be determined by the Commissioner on the basis of the latest available estimates furnished by the Department of Commerce.

"(F) The amount apportioned under this section to any State for the fiscal year ending June 30, 1968. shall be available for obligation for grants pursuant to applications approved during that year and the succeeding fiscal year.

"(3) Grants or contracts pursuant to this subsection may be made by the Commissioner, upon such terms and conditions consistent with the provisions of this section as he determines will most effectively carry out the purposes of paragraph (1), to pay part of the cost of—

"(A) planning and developing exemplary and innovative programs or projects such as those described in subparagraph (B), or

"(B) establishing, operating, or evaluating exemplary and innovative vocational education programs or projects designed to broaden occupational aspirations and opportunities for youths, with special emphasis given to youths who have academic socioeconomic, or other handicaps, which programs or projects may, among others, include—

"(i) those designed to familiarize postelementary school students with the broad range of occupations for which special skills are required and the requisites for careers in such occupations;

"(ii) programs or projects for students providing educational experiences through work;

"(iii) programs or projects for intensive occupational guidance and counseling during the last years of school and for initial job placement; or

"(iv) programs or projects designed to broaden or improve vocational education curriculums.

"(4)(A) Programs or projects referred to in clause (ii) of paragraph (3)(B) may include cooperative workstudy arrangements, other educationally related public or private employment, or volunteer work. Preference in compensated work under such programs or projects shall be given to students from low-income families.

"(B) No grant or contract shall be made by the Commissioner under this subsection with respect to any such program or project unless—

"(i) such program or project will not involve the construction, operation, or maintenance of so much of any facility as is used or to be used for sectarian instruction or as a place for religious worship;

"(ii) such program or project will not result in the displacement of employed workers or impair existing contracts for services.

"(C) Funds appropriated under this subsection shall not be available to pay any part of the compensation of a student involved in a program or project referred to in clause (ii) of paragraph (3)(B) if the work is performed for any employer other than a public or private nonprofit agency, organization, or institution.

"(5) (A) In determining the cost of a program or project under this subsection, the Commissioner may include the reasonable value (as determined by him) of any goods or services provided from non-Federal sources.

"(B) Financial assistance may not be given under this subsection to any program or project for a period exceeding three years.

"(6) In administering the provisions of this subsection, the Commissioner shall consult with other Federal departments and agencies administering programs which may be effectively coordinated with the program carried out pursuant to this subsection, and to the extent practicable shall—

"(i) coordinate such program on the Federal level with the programs being administered by such other departments and agencies; and

"(ii) require that effective procedures be adopted by grantees and contractors to coordinate the development and operation of programs and projects carried out under grants or contracts pursuant to this subsection with other public and private programs having the same or similar purposes."

WORK-STUDY PROGRAM

SEC. 4. (a) Section 13(a)(1) of the Vocational Education Act of 1963 (20 U.S.C. 35k(a)(1) is amended by striking out "From the sums appropriated pursuant to section 15 and determined to be for the purposes of this section" and inserting in lieu thereof the following: "There is authorized to be appropriated the sum of $30,000,000 for the fiscal year ending June 30, 1968, and for each succeeding fiscal year. From the sums appropriated pursuant to this paragraph".

(b) (1) Section 13(e) of such Act is amended to read as follows:

"(e) From a State's allotment under this section for each fiscal year, the Commissioner shall pay to such State an amount not exceeding 90 per centum of the sum of (1) the amount expended for compensation of students employed pursuant to work-study programs under the State's supplementary plan approved under this section, and (2) the amount (not to exceed 1 per centum of such allotment, or $10,000, whichever is the greater) expended for the development of the State's supplementary plan and for the administration of such plan after its approval by the Commissioner. No State shall receive payments under this section for any fiscal year in excess of its allotment under subsection (a) for such fiscal year."

(2) The amendments made by paragraph (1) of this subsection shall apply only with respect to amounts expended after the date of enactment of this Act.

(c) Section 13 of such Act is further amended by adding at the end thereof the following new subsection:

"(h) (1) Notwithstanding the provisions of title IV of the Social Security Act, a State plan approved under section 402 of such Act shall provide that for a period of not less than twelve months, and may provide that for a period of not more than twenty-four months, the compensation paid to a student under this section shall not be regarded (A) in determining the need of such student under such approved State plan, or (B) in determining the need of any other individual under such approved State plan.

"(2) Notwithstanding the provisions of paragraph (1) of this subsection, no funds to which a State is otherwise entitled under title IV of the Social Security Act for any period ending before the one hundred and twentieth day after the adjournment of the State's first regular legislative session which adjourns more than one hundred and twenty days after enactment of the Vocational Education Amendments of 1967 shall be withheld by reason of any action taken pursuant to a State statute which prevents such State from complying with the requirements of paragraph (1) of this subsection."

RESIDENTIAL VOCATIONAL EDUCATION SCHOOL PROGRAM

SEC. 5. (a) Section 14 of the Vocational Education Act of 1963 (20 U.S.C. 351) is amended to read as follows:

"RESIDENTIAL VOCATIONAL EDUCATION SCHOOLS

"SEC. 14. (a) (1) (A) There is authorized to be appropriated the sum of $10,000,000 for the fiscal year ending June 30, 1968. From such sum, the Commissioner shall apportion $100,000 to each State. The remainder of such sum shall be apportioned among the States in accordance with subparagraph (C).

"(B) There is authorized to be appropriated the sum of $100,000,000 for the fiscal year ending June 30, 1969, and for each of the three succeeding fiscal years. Such sums shall be apportioned among the States in accordance with subparagraph (C).

"(C) From the sums available for apportionment under this subparagraph the Commissioner shall apportion to each State—

"(i) an amount which bears the same ratio to 50 per centum of such sums as the number of children aged five to seventeen, inclusive, in the State bears to the number of such children in all the States, and

"(ii) an amount which bears the same ratio to 50 per centum of such sums as the population of the State bears to the population of all the States.

"(D) For purposes of this paragraph—

"(i) the term 'State' does not include the Commonwealth of Puerto Rico, Guam, American Samoa, and the Virgin Islands, and

"(ii) the number of children aged five to seventeen, inclusive, and the total population of a State and of all the States shall be determined by the Commissioner on the basis of the most recent satisfactory data available to him.

"(2) In addition to the sums authorized to be appropriated by paragraph (1), there is hereby authorized to be appropriated the sum of $200,000 for the fiscal year ending June 30, 1968, the sum of $5,000,000 for each of the four succeeding fiscal years. Such sums shall be apportioned by the Commissioner among the Commonwealth of Puerto Rico, Guam, American Samoa, and the Virgin Islands, according to their respective needs for assistance under this section.

"(3) The amount apportioned under this subsection to any State for the fiscal year ending June 30, 1968, shall be available for payments to applicants with approved applications in that State during that year and the next fiscal year.

"(4) The amount apportioned to any State for a fiscal year under this subsection which the Commissioner determines will not be required for the period for which that amount is available shall be available for reapportionment from time to time, on such dates during that period as the Commissioner may fix, among other States in proportion to the amounts originally apportioned among those States under this subsection for that year, but with the proportionate amount of any of the other States being reduced to the extent it exceeds the sum the Commissioner estimates that State needs and will be able to use for that period; and the total of these reductions shall be similarly reapportioned among the States whose proportionate amounts were not so reduced.

"(b) (1) For the purpose of demonstrating the feasibility and desirability of residential vocational education schools for certain youths of high school age, the Commissioner is authorized to make grants from the sums allotted to a State under subsection (a) for a fiscal year to the State board for such State, or with the approval of such State board, to public educational agencies, organizations, or institutions within such State to pay the Federal share of the cost of planning, construction, and operation of residential school facilities for providing vocational education (including room, board, and other necessities) for youths, at least fifteen years of age and less then twenty-one years of age at the time of enrollment, who need full-time study on a residential basis in order to benefit fully from such education. In the administration of the program conducted under this section, special consideration shall be given to the needs of areas having substantial or disproportionate numbers of youths who have dropped out of school or are unemployed.

"(2) For purposes of this section—

"(A) the Federal share of the cost of planning, construction, and operation of residential school facilities shall not exceed (i) 90 per centum in the case of costs incurred in the fiscal years ending on June 30, 1968, and June 30, 1969 (except as provided in sub-paragraph (B)), and (ii) 75 per centum in the case of costs incurred thereafter; and

"(B) the Federal share of the cost of planning residential school facilities shall be 100 per centum for the fiscal year ending June 30, 1968.

"(C) The Commissioner shall require, as a condition to the receipt of a grant under this section for planning, construction, or operation of residential school facilities, that the recipient of such grant give satisfactory assurances that—

"(1) adequate provision will be made for the appropriate selection, without regard to race, color, religion, or national origin, of students needing education and training at such school;

"(2) the residential school facility with respect to which the grant was made will be operated and maintained for the purpose of conducting a residential vocational education school program consistent with the provisions of this section:

"(3) vocational education course offerings at such school will be in fields for which labor market analysis indicates there is a present and probably continuing need for trained manpower, and that the courses offered will be appropriately designed to prepare enrollees for entry into employment in such fields;

"(4) Federal funds made available under this section will be used to supplement, and, to the extent practicable, increase the amount of State and local funds that would in the absence of such Federal funds be made available for residential vocational education schools, and in no case supplant such State and local funds;

"(5) provision will be made for minimum qualifications for teachers, teacher-trainers, supervisors, directors, and others having responsibilities at such school;

"(6) the recipient will adopt such fiscal control and fund accounting procedures as may be necessary to assure proper disbursement of, and accounting for, Federal funds paid to such recipient under this section;

"(7) in developing plans for the construction of facilities, due consideration shall be given to excellence of architecture and design and to the inclusion of works of art;

"(8) the requirements of section 7 will be complied with on all construction projects assisted under this section;

"(9) the recipient will make such reports in such form and containing such information as the Commissioner may reasonably require to carry out his functions under this section, and keep such records and afford such access thereto as the Commissioner may find necessary to assure the correctness and verification of such reports; and

"(10) no fees, tuition, or other charges will be required of enrollees.

Grants under this section shall be subject to such other terms and conditions as the Commissioner may by regulation prescribe in order to carry out the provisions of this section.

"(d) For purposes of this section:

"(1) The term 'residential school facility' means a school facility as defined in section 8(3)) used for residential vocational education purposes. Such term also includes dormitory, cafeteria, and recreational facilities, and such other facilities as the Commissioner determines are appropriate for conducting a residential vocational education school.

"(2) The term 'operation' means maintenance and operation, and includes the cost of salaries, equipment, supplies and materials."

(b) Section 8 of the Vocational Education Act of 1963 (20 U.S.C. 35g) is amended by inserting at the end of paragraph (4) (relating to definition of construction) the following new sentence: "For purposes of section 14, such term also includes the cost of acquisition of works of art for a residential school facility (to the extent that such cost does not exceed 1 per centum of the cost of the construction of such facility)."

ESTABLISHMENT OF FELLOWSHIP AND EXCHANGE PROGRAMS FOR VOCATIONAL EDUCATION TEACHERS AND EDUCATORS

SEC. 6. Section 15 of the Vocational Education Act of 1963 (20 U.S.C. 35m) is amended to read as follows:

"FELLOWSHIP AND EXCHANGE PROGRAMS

"SEC. 15. (a) (1) There are authorized to be appropriated $20,000,000 for the fiscal year ending June 30, 1969, $30,000,000 for the fiscal year ending June 30, 1970, and $35,000,000 for the fiscal year ending June 30, 1971, and each of the two succeeding fiscal years, to carry out cooperative programs under this subsection.

"(2) The Commissioner is authorized to make grants to State boards to pay the cost of carrying out cooperative arrangements for the training of experienced vocational education teachers and administrators and of other persons pursuing or planning to pursue a career in vocational education or vocational education administration, in order to strengthen educational programs supported by this

Act and the administration of schools offering vocational education. Such cooperative arrangements may be between schools offering vocational education or between schools offering vocational education and private industry, commercial enterprises, or other educational institutions (including those for the handicapped and delinquent). Grants under this subsection may be used for projects and activities such as—

"(A) exchange of vocational education teachers or school administrators with skilled technicians or supervisors in industry (including mutual arrangements for preserving employment and retirement status, and other employment benefits during the period of exchange), and the development and operation of cooperative programs involving alternate periods of teaching in schools providing vocational education and of experience in commercial, industrial, or public employment related to the subject matter taught in such school;

"(B) in-service training programs for vocational educaton teachers and other staff members, to improve the quality of instruction, supervision, and administration of vocational education programs; and

"(C) the operation of short-term or academic year institutes for the provision of training to improve the qualifications of persons engaged in or preparing to engage in teaching, counseling, supervising, or administering vocational education programs. Each individual who attends an institute operated under the provisions of this subpararaph, shall be eligible for the period of his attendance at such institute (after application therefor) to receive a stipend (including an allowance for subsistence and other expenses for such person and his dependents) at a rate determined by the Commissioner to be consistent with prevailing practices under comparable federally supported programs.

"(3) A grant may be made under this subsection only upon application to the Commissioner at such time or times and containing such information as he deems necessary. The Commissioner shall not approve an application unless it—

"(A) sets forth a program for carrying out one or more projects or activities which meet the requirements of paragraph (1), and provides for such methods of administration as are necessary for the proper and efficient operation of the program;

"(B) sets forth policies and procedures which assure that Federal funds made available under this subsection for any fiscal year will be so used as to supplement and, to the extent practicable, increase the level of funds that would, in the absence of such Federal funds, be made available for purposes which meet the requirements of paragraph (1), and in no case supplant such funds;

"(C) provides for such fiscal control and fund accounting procedures as may be necessary to assure proper disbursement of and accounting for Federal funds paid to the applicant under this subsection; and

"(D) provides for making such reports, in such form and containing such information, as the Commissioner may require to carry out his functions under this subsection, and for keeping such records and for affording such access thereto as the Commissioner may find necessary to assure the correctness and verification of such reports."

"(b) (1) There are authorized to be appropriated to carry the fellowship program established by this subsection $1,500,000 for the fiscal year ending June 30, 1969; $3,000,000 for the fiscal year ending June 30, 1970; and $5,000,000 for the fiscal year ending June 30, 1971, and each of the two succeeding fiscal years. For the fiscal year ending June 30, 1974, and the succeeding fiscal year, there are authorized to be appropriated such sums as may be necessary in order to permit persons awarded fellowships under this subsection in fiscal years ending before June 30, 1974, to complete the programs for which they were awarded fellowships.

"(2) (A) During the fiscal year ending June 30, 1969, the Commissioner is authorized to award one hundred fellowships to persons pursuing or intending to pursue careers as vocational education teacher educators and researchers, and one hundred and fifty fellowships to persons pursuing or intending to pursue careers as vocational education administrators; and during each of the four succeeding fiscal years he is authorized to award one hundred fellowships to persons pursuing or intending to pursue careers as vocational education teacher educators and researchers, and two hundred fellowships to persons pursuing or intending to pursue careers as vocational education administrators. Such fellowships shall be for periods of study not in excess of three academic years.

"(B) In addition to the number of fellowships authorized to be awarded by subparagraph (A) of this paragraph, the Commissioner is authorized to award fellowships equal to the number previously awarded during any fiscal year under this paragraph but vacated prior to the end of the period for which they were awarded. A fellowship awarded under this subparagraph shall be for such period of study, not in excess of the remainder of the period for which the fellowship which it replaces was awarded, as the Commissioner may determine.

"(3) The Commissioner shall award fellowships under this subsection to individuals for study in graduate programs approved by him under this paragraph. The Commissioner shall approve a graduate program of an institution of higher education only upon application by the institution and only upon his finding—

"(A) that such program is designed to substantially further the objective of improving vocational education through increasing the opportunities for graduate training of vocational educational administrators and of university level vocational education teacher educators and researchers.

"(B) that in the acceptance of persons for study in such programs, preference will be given to persons interested in teaching in vocational and technical education programs in institutions of higher education or in the administration of vocational education programs.

"(4) The total of the fellowships awarded under this subsection for pursuing a course of study in a graduate program at any institution of higher education may not exceed a limit established by the Commissioner in the light of the objective referred to in paragraph (3) (A).

"(5) (A) The Commissioner shall pay to each person awarded a fellowship under this subsection a stipend (including an allowance for subsistence and other expenses for such person and his dependents) which he determines to be consistent with prevailing practices under comparable federally supported programs.

"(B) In addition to the amounts paid to a person pursuant to subparagraph (A), there shall be paid to the institution of higher education at which each such person is pursuing his course of study, $2,500 per academic year, less any amount charged such person for tuition.

"(6) A person awarded a fellowship under the provisions of this subsection shall continue to receive the payments provided in paragraph (5) (A) only during such periods as the Commission finds that he is maintaining satisfactory proficiency in, and devoting essentially full time to, study or research in the field in which such fellowship was awarded, in an institution of higher education, and is not engaging in gainful employment, other than part-time employment by such institution in teaching, research, or similar activities, approved by the Commissioner.

"(c) In order to meet the needs for qualified vocational educational instructors, administrators, and teacher educators in vocational education programs in all the States, the Commissioner in carrying out this section shall equitably allocate among the States (1) the funds for cooperative arrangements available under subsection (a), and (2) the fellowships available under subsection (b), taking into account such factors as the State's vocational education school enrollment, and incidence of youth unemployment and school dropouts in the State. Fellowships allocated to a State may be awarded only to residents of such State, but a person to whom a fellowship is awarded may study at an institution with an approved program in any State."

MINOR, TECHNICAL, AND CONFORMING AMENDMENTS

SEC. 7. (a) Paragraphs (1), (2), and (3) of section 3(a) of the Vocational Education Act of 1963 (20 U.S.C. 35b(a)) are each amended by striking out "in the preceding fiscal year" and inserting in lieu thereof "(based on the latest available estimates furnished by the Department of Commerce)".

(b) Section 3(d)(4) of such Act is repealed.

(c) (1) Section 4(a) of such Act (describing permitted uses of Federal funds under approved State plans) is amended by changing the period at the end of paragraph (6) to a semicolon and inserting immediately after paragraph (6) the following new paragraph:

"(7) The planning, establishment, operation, and evaluation of programs or projects of the kind described in subsection (d), whether or not previously assisted by a grant or contract under such subsection."

(2) Section 5(a) (2) and section 6(b) of such Act are each amended by striking out "and (6)" and inserting in lieu thereof "(6), and (7)".

(d) Section 6 of such Act is amended by striking out subsection (a) and redesignating subsections (b), (c), and (d) as (a), (b), and (c), respectively.

(e) Section 6(b) of such Act (as so redesignated by subsection (d) of this section) is amended by striking out "each area vocational school facility project" and inserting in lieu thereof "all area vocational school facility projects in such State for such fiscal year".

(e) (1) Section 6 of such Act is amended by adding at the end thereof the following new subsection:

"(d) (1) If, during the public benefit period for any vocational education property acquired or constructed in whole or in part with Federal financial assistance under this part—

"(A) the agency which acquired or constructed such property (or its successor in title or possession) ceases or fails to be a public agency, or

"(B) such property ceases to be used for purposes of vocational education, the United States shall be entitled to recover from such agency (or successor) an amount which bears the same ratio to the then market value of such vocational education property as the aggregate Federal financial assistance made available for the acquisition or construction of such property bore to the cost of acquisition or construction of such property. Such market value shall be determined by agreement of the parties or by action brought in the United States district court for the district in which such facility is situated.

"(2) For purposes of this subsection:

"(A) The term 'vocational education property' means real property consisting of an area vocational school or a residential school facility (as defined in section 14(d)(1)), or personal property consisting of equipment. Such term excludes any portion of such property which did not constitute a part of an approved project (for purposes of receiving Federal financial assistance under this part).

"(B) The term 'public benefit period' means—

"(i) in the case of real property consisting of an area vocational school, a period of twenty years;

"(ii) in the case of real property consisting of a residential school facility, a period of thirty years; or

"(iii) in the case of personal property consisting of equipment, a period established by the Commissioner, after consultation with the Commissioner of Internal Revenue, consistent to the extent practicable with the useful life (for the purpose of computing depreciation allowances under section 167 of the Internal Revenue Code of 1954) of similar equipment used by taxpayers.

Such period shall begin on the latest date on which any portion of the property was acquired with financial assistance under this part (or, in the case of construction, on the latest date on which construction of any portion of the property was completed with financial assistance under this part).

"(C) The term 'Federal financial assistance under this part' means assistance made available from the allotment to a State under section 3 or section 14(a)."

(2) The amendment made by this subsection shall apply only with respect to property which was acquired, or the construction of which was begun, after the date of enactment of this Act with funds appropriated for fiscal years beginning after June 30, 1967.

(f) The second sentence of paragraph (1) of section 8 of such Act (defining the term "vocational education") is amended by inserting "(individually or through group instruction)" immediately after "counseling", and by inserting "or for the purpose of facilitating occupational choices" immediately after the word "training" the first time such word appears in that sentence.

(g) The first sentence of section 5(a) of such Act is amended by striking out "this part" and inserting in lieu thereof "section 3".

(h) The heading of section 6 of such Act is amended to read "PAYMENTS", and the following sentence is added at the end of subsection (c) of such section (as so redesignated by subsection (d)): "Other payments pursuant to this Act may be made in installments, in advance or by way of reimbursement, with necessary adjustments on account of overpayments or underpayments."

(i) Section 4(c) of such Act is amended by inserting ", or to make contracts with private agencies, organizations, or institutions for, (1)" immediately after "cost of"; by striking out "and of" immediately preceding "experimental" and inserting in lieu thereof", (2)"; and by inserting immediately prior to the period the following: ", or (3) for the dissemination of information derived from the foregoing programs or from research and demonstrations in the field of vocational education".

(j)(1) Paragraph (6) of section 8 of such Act is amended by striking out "and American Samoa" and by inserting in lieu thereof "American Samoa, and the Trust Territory of the Pacific Islands".

(2) Paragraphs (1), (2), and (3) of section 3(d) of such Act are amended by striking out the words "and the Virgin Islands" each time they occur and by inserting in lieu thereof "the Virgin Islands, and the Trust Territory of the Pacific Islands".

(k) Section 10(c)(1) of such Act is amended by adding before the semicolon at the end thereof the following: ", and less than one-third of any amount so allotted (or apportioned) need be applied to part-time schools or classes for workers who have entered upon employment".

(l) Section 201 of the Act of June 8, 1946 (20 U.S.C. 15aa), is amended by striking out "$5,000,000" and inserting in lieu thereof "$50,000,000".

Summary of the Major Provisions of H.R. 8525 (and Similar Bills)

The Vocational Education Improvement Act of 1967

SECTION 1—SHORT TITLE

Vocational Education Improvement Act of 1967.

SECTION 2—APPROPRIATION AUTHORIZATIONS

Section 2 of the Vocational Education Act of 1963 (Public Law 88-210) provides authorizations in the amount of $225 million for fiscal year 1968 and for each fiscal year thereafter.

Section 2 of the bill would increase this limitation on appropriations from $225 to $400 million effective in the fiscal year ending June 30, 1969.

SECTION 3—EXEMPLARY AND INNOVATIVE PROGRAMS OR PROJECTS IN VOCATIONAL EDUCATION

Section 201. This section amends section 4 to add at the end a new subsection (d).

Paragraph (1) of the new subsection authorizes an appropriation of $30 million for carrying out subsection (d) for fiscal year 1968 and such sums as may be necessary for the four succeeding fiscal years, and authorizes the Commissioner to make grants to or contracts with State boards and local educational agencies for the purpose of stimulating or assisting in the development, establishment, and operation of innovative and exemplary occupational education programs or projects designed to serve as models for use in vocational education programs. The Commissioner also is authorized to make grants to or contracts with other public or nonprofit private agencies, organizations, or institutions, or to make contracts with private agencies, organizations, or institutions, when such grants or contracts will make an especially significant contribution to attaining the objectives of this subsection.

Paragraph (2)(A) and (B) directs the Commissioner to reserve an amount not exceeding 2 percent of the appropriation to meet the needs of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Trust Territory of the Pacific Islands, and to apportion $150,000 to each of the States, the remainder to be apportioned on the basis of the population in each of the States aged 15 to 19, both inclusive.

Paragraph (2)(C) allows the Commissioner to reapportion sums not needed within any State.

Paragraph (2)(D) excludes Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Trust Territory of the Pacific Islands from the definition of State for the purposes of subsection (d)(2)(A) and (B).

Paragraph (2)(E) requires that the population of particular age groups in a State or in all the States be determined by the Commissioner on the basis of the latest available estimates furnished by the Department of Commerce.

Paragraph (3) authorizes the use of these grants or contracts, under terms and conditions specified by the Commissioner, for planning and developing innovative and exemplary vocational education programs or projects and for establishing, operating, or evaluating such programs or projects which are designed to broaden occupational aspirations and opportunities for youths, with emphasis given to youths who have academic, socioeconomic or other handicaps. These programs or projects may include among others:

1. Those designed to familiarize postelementary school students with the broad range of occupations for which special skills are required and the requisites for careers in such occupations;
2. Programs or projects for students providing educational experiences through work;
3. Programs or projects for intensive occupational guidance and counseling during the last years of school and for initial job placement;
4. Programs or projects designed to broaden or improve vocational education curricula.

Paragraph (4)(A) authorizes the programs or projects referred to in clause (ii) of paragraph 3(B) to include cooperative work-study arrangements, other educationally related work, or volunteer work. Preference in compensated work under these programs or projects must be given to students from low-income families.

Paragraph (4)(B) prohibits the funding of a program or project under clause (ii) of paragraph 3(B) unless—

1. Employment will not involve the construction, operation, or maintenance of so much of any facility as is used or to be used for sectarian instruction or religious worship;
2. The work will not result in the displacement of employed workers or impair existing contracts for services.

Paragraph (4)(C) prohibits the use of funds appropriated under this subsection for paying any part of the compensation of a student if the work is performed for any employer other than a public or nonprofit private agency, organization, or institution.

Paragraph (5)(A) authorizes the Commissioner to include in the cost of a project or program under this subsection the reasonable value (as determined by him) of goods and services provided from non-Federal sources. Subparagraph (B) prohibits support under subsection (d) of any program or project for more than three years.

Paragraph (6) requires coordination at the Federal and local levels between programs or projects carried out under section 4(d) and other public or private programs having similar purposes.

SECTION 4—WORK STUDY PROGRAM

Under Section 15 of the Vocational Education Act, $35 million is authorized for each of the fiscal years ending June 30, 1968, and June 30, 1969, for carrying out both the work study program and the residential vocational school program. The Commissioner of Education under the existing law determines the portion of such sum which is to be used for work study and for the residential school program.

Section 4(a) of the bill provides a separate authorization for the work study program of $30 million for fiscal year 1968 and for each of the succeeding fiscal years.

Section 4(b) reduces the State matching requirement from 25 to 10 percent for the work study program, effective for expenditures made after enactment of the bill.

Section 4(c) requires State plans approved under title IV of the Social Security Act to provide (after an appropriate waiting period) that, for a period of not less than 12 nor more than 24 months, the compensation a student receives under the work study program shall be disregarded in determining need under the program of aid to families with dependent children.

SECTION 5—RESIDENTIAL VOCATIONAL EDUCATION SCHOOL PROGRAM

Section 14 of existing law authorizes the Commissioner of Education to make grants to State boards and other educational agencies and organizations for the construction and operation of residential schools on a demonstration basis. Authorizations for the program are not to be that amount apportioned from the $35 million in section 15 which is not allocated for the work study program. Under the existing law no allocation of funds to States is made, the Commissioner being left with the discretion of where in the United States residential vocational school demonstration programs are to be initiated.

Section 5 of the bill rewrites section 14 of the Vocational Education Act of 1963 so as to provide these new major features of the residential vocational authorization:

(1) An authorization of $10 million for fiscal year 1968 and an authorization of $100 million for fiscal year 1969 and each of the 3 succeeding fiscal years.

(2) An authorization of $200,000 for fiscal year 1968 and an authorization of $5 million for fiscal year 1969 and each of the 3 succeeding fiscal years for the conduct of the program in Puerto Rico, Guam, American Samoa and the Virgin Islands.

(3) A State allocation formula utilizing the relative number of children ages 5–17 and the relative total population of the States to assure each State funds for at least one demonstration residential vocational school.

(4) Permits grant funds to be used for planning, construction, and operation of such schools.

(5) Provides State matching requirements for fiscal year 1968 and 1969 shall be 10 percent of the cost incurred (except in the case of planning in fiscal year 1968 in which case the Federal share is 100 percent). After fiscal year 1969 the State matching requirement is 25 percent of such costs.

(6) Conduct of the residential program without discrimination on a tuition-free basis for youths at least 15 years of age and less than 21 years of age.

(7) Special consideration be given to areas having substantial or disproportionate numbers of youths who have dropped out of school or are unemployed.

(8) Vocational course offerings to be geared to labor market analyses and appropriately designed to prepare students for entry into employment.

(9) That Federal funds will supplement and not replace local funds.

(10) Provision for fiscal control and fund accounting and qualification standards for teachers, teacher trainers, supervisors, and directors.

(11) Contain assurances that the Federal investment in vocational school facilities will be preserved for a 30-year period.

(12) Provides for proportionate reapportionment of funds allocated to a State but not utilized.

SECTION 6—STRENGTHENING THE QUALITY OF VOCATIONAL EDUCATION INSTRUCTION

Section 6 of the bill adds a new section 15 to the Vocational Education Act of 1963, subsection (a) of which authorizes $20 million for fiscal year 1969, $30 million for fiscal year 1970 and $35 million for fiscal year 1971 and each of the 2 succeeding fiscal years to defray the cost of carrying out cooperative arrangements for the training of experienced vocational education teachers and administrators and persons planning to pursue such a career. For this purpose the subsection authorizes grants to State boards to pay the cost of:

> (1) Exchange of vocational education teachers (including vocational teachers in education institutions for the handicapped and delinquent) or school administrators with skilled technicians or supervisors in industry.
>
> (2) Inservice training program.
>
> (3) The operation of short-term or academic year institutes to provide training of persons engaged in or preparing to engage in teaching, in counseling, in administering vocational education programs.

Subsection (b) of this section authorizes $1.5 million for the fiscal year ending June 30, 1969, $3 million for fiscal year 1970, $5 million for fiscal year 1971 and each of the 2 succeeding fiscal years to provide fellowships for vocational education teacher educators, researchers, and vocational education administrators. One hundred fellowships are authorized for vocational teacher educators, 150 fellowships for administrators in fiscal year 1969. These authorizations are 100 and 200 fellowships for the respective fields of study for each of the ensuing 4 fiscal years.

The subsection contains provisions comparable to other fellowship and education programs with respect to fiscal control, fund accounting procedures, applications for grants and reporting.

Stipends authorized in connection with fellowships are to be consistent with prevailing practices under comparably federally supported programs. Institutional allowances of $2,500 a fellowship per academic year are authorized in addition to the stipend.

Subsection (c) of section 5 requires the Commissioner to equitably allocate among the States the funds for cooperative arrangements and fellowships authorized by the section, taking into account such factors as the State's vocational education school enrollment and incidence of youth unemployment and school dropout in the State.

SECTION 7—TECHNICAL AMENDMENTS

Section 7 contains technical amendments to the Vocational Education Act of 1963 as follows:

(1) Permits the Office of Education in making allotments to States under section 3, to utilize the latest available estimates furnished by the Department of Commerce rather than data for the "preceding fiscal year" in order to adjust to a situation in which data for the preceding fiscal year are not usually available at the time States should be notified of their allotments.

(2) Paragraph (1) of subsection (a) amends section 4(a) to allow the States to initiate or carry on programs or projects of the type described in section 4(d). Paragraph 2 of this subsection makes a conforming amendment.

(3) Deletes subsection (a) of section 6 since it deals with the maintenance of effort requirement applicable only for fiscal year 1964.

(4) Amends subsection (c) of section 6 so as not to require States to match dollar for dollar each area vocational school facility project but modifies the requirement so as to only require that for each Federal dollar expended in a State for area vocational school construction an equal amount of State and local funds will be spent for area vocational school construction in the State.

(5) Amends section 6 of the Act to require use of facilities constructed and equipment acquired for vocational education purposes for a "public benefit" period, and further provides procedures for recovery of the Federal interest in the event that facilities are diverted to other than vocational education uses before the expiration of such period.

(6) Amends the definition of "vocational education" to make it clear that the term includes vocational guidance and counseling whether done individually or through group instruction and to make it clear that the term includes vocational guidance and counseling given to students who have not yet made occupational choices.

(7) Makes a conforming amendment to section 5(a) of the Act.

(8) Makes a conforming amendment to section 6 of the Act.

(9) Amends section 4(c) to allow the purposes of that section to be accomplished through contracts as well as grants; and to authorize the dissemination of information derived from section 4(c) programs as well as from vocational education research and demonstrations.

(10) Amends the definition of State under the Act to include the Trust Territory of the Pacific Islands.

(11) Amends section 10(c)(1) of the Act so as not to require one-third of funds allocated under the George Barden and Smith-Hughes Acts for vocational home economics to be expended for part-time schools or classes.

(12) Amends section 201 of the George Barden Act to increase the authorization for practical nurses training from $5 to $50 million for each fiscal year.

Mr. Pucinski. Mr. Quie?

Mr. Quie. I understand the residential vocational schools have not been funded and I was wondering where those two residential vocational schools are operating.

Mr. Pucinski. Both are operating in Ohio.

Mr. Quie. Mahoning Valley, I understand, is one.

Mr. Pucinski. Yes.

Mr. Quie. So they are funded under MDTA?

Mr. Pucinski. Yes; but there is such authorization in the 1963 act. It is our hope we will be able to perhaps move these and similar projects along in this legislation through activities in our committee.

Mr. Quie. The authorization has not been utilized?

Mr. Pucinski. That is correct.

Mr. Brademas?

Mr. BRADEMAS. I want to support what the chairman has said about the importance of this legislation. I don't want to take the time of our witness this morning but I would like, if it is in order, to observe that we have a distinguished guest in our hearing, Prof. Thomas L. Johnston of the University of Edinburgh of Scotland who has been retained by the Office of Economic Cooperation and Development in Paris as a consultant to study "coordination of public and private manpower policies" in the United States.

We are happy to have you with us today as we consider this related legislation.

Mr. PUCINSKI. Mr. Quie?

Mr. QUIE. Thank you. I am looking forward to these hearings on vocational educational legislation. I think the fact the Federal Government began assisting with Federal aid to such education programs back before World War I lends support to the importance of assistance in this area and the need for strengthening this program.

I would like to make one comment about the vocational education schools, I have long supported them. However, I did question the previous 100-percent financing which was in the OEO bill for the Job Corps.

The last year we were considering residential vocational schools in the committee and the subcommittee, we considered then 75 percent Federal and 25 percent local financing.

If you men would, during your testimony, address yourself to that relationship and the network of people involved, I think this would be helpful to us.

I feel that one of the reasons the Job Corps ran into difficulty was because there was no real involvement of people.

Mr. PUCINSKI. Mr. Scheuer.

Mr. SCHEUER. I want to echo the words of the chairman on the importance of expansion and innovation in the vocational education program. The talk is of the opportunity of creative thinking in vocational education and the variety of options for the kid who may not find the normal academic programs preparing him for his needs and his desires. We need a vast variety of mixes between vocational instruction in an academic environment and some academic learning in a job training situation; a variety, I think, that is a real must. So I supported the legislation for this program and I look forward to hearing the testimony before this committee.

Mr. PUCINSKI. Mr. Scherle.

Mr. SCHERLE. No comment.

Mr. PUCINSKI. Mr. Gibbons.

Mr. GIBBONS. Nothing at this time.

Mr. PUCINSKI. Mr. Steiger.

Mr. STEIGER. If I may I want to support the testimony of my colleague, Mr. Quie. The fact we started 50 years ago with this act and the fact that more States have undertaken broader programs for vocational education, I think clearly indicates the needs that exist and this legislation we hope can meet these needs.

I think the hearings can be most beneficial.

Mr. PUCINSKI. Thank you.

Our first witness this morning is the distinguished Commissioner of Education, Mr. Harold Howe who has already made his mark here in Washington in the many important fields of education. We are, indeed, delighted that the Commissioner considers this legislation of such significant importance that he has requested to personally testify on it.

We are very happy to see with him Mr. Grant Venn, Associate Commissioner for Adult and Vocational Education from the Office of Education, and also Mr. David Bushnell, the Director of the Division of Adult and Vocational Research, Bureau of Research, Office of Education.

Gentlemen, before I welcome you to the committee and turn the meeting over to you, if there is no objection, I would like to put at this point in the record the excellent statement made by the President when he spoke of the 50th anniversary of the signing of the Smith-Hughes Vocational Education Act on February 23, 1967. If there is no objection, it will be entered in the record at this point.

(The statement by the President follows:)

STATEMENT BY THE PRESIDENT, ON THE 50TH ANNIVERSARY OF THE SIGNING OF THE SMITH-HUGHES VOCATIONAL EDUCATION ACT

Fifty years ago today—February 23, 1917—President Woodrow Wilson signed into law the Smith-Hughes Vocational Education Act—an Act which has provided a firm foundation for significant developments in public vocational and technical education in the United States.

One of the most important accomplishments of the Smith-Hughes Act was the establishment of cooperative activities between the Federal Government and the States. Financial support is provided to our country's most worthwhile endeavor, the education and development of its youth.

Congress had passed a unmber of other Acts to provide for the expansion and further development of vocational and technical education. The Vocational Education Act of 1963 is helping to make possible an effective nationwide system of vocational and technical education programs. Over the 50-year period, approximately $1.7 billion has been made available to the States under Federal vocational educational laws.

Our goal must be to develop high quality programs of vocational and technical education related to the changing needs of the economy and readily accessible to all youths and adults.

STATEMENTS OF HON. HAROLD HOWE II, COMMISSIONER OF EDUCATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE; GRANT VENN, ASSOCIATE COMMISSIONER FOR ADULT AND VOCATIONAL EDUCATION, U.S. OFFICE OF EDUCATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE; ALBERT L. ALFORD, ASSISTANT COMMISSIONER FOR LEGISLATION; DAVID BUSHNELL, DIRECTOR, DIVISION OF ADULT AND VOCATIONAL RESEARCH, BUREAU OF RESEARCH, OFFICE OF EDUCATION

Mr. PUCINSKI. Gentlemen, will you proceed.

Mr. HOWE. Mr. Venn and I both have testimony. I think it would serve the purpose of the hearing if you allow us to summarize this testimony and enter our statements in the record. The testimony is fairly long.

Mr. PUCINSKI. That will be fine.

(Mr. Howe's statement follows:)

STATEMENT BY HON. HAROLD HOWE II, U.S. COMMISSIONER OF EDUCATION

Mr. Chairman and members of the subcommittee, fifty years ago, on February 23, 1917, President Woodrow Wilson signed into law an Act which has proven to be a major landmark in education—the Smith-Hughes Act. It was the first education law to authorize Federal financial assistance to local schools. Although Congress had previously demonstrated its interest in education by enacting legislation making grants of land for education, never before had Federal funds been made available to local schools through a program of direct assistance.

The significance of the Smith-Hughes Act goes far beyond the field of vocational education because it has set a pattern which has been followed to this day.

As President Johnson stated on the anniversary of the signing of the Act, "One of the most important accomplishments of the Smith-Hughes Act was the establishment of cooperative activities between the Federal Government and the States."

The unique concept of a State plan with matching funds purposely designed to strengthen cooperative Federal-State relationships in helping to solve pressing social and economic problems across the Nation has served as a precedent and as a model for most of the Federal-aid-to-education legislation down to the present time.

Subsequent legislation affecting vocational education stands as the best witness to the success of the program. For, it is only in the field of vocational education that there has been an unbroken line of Congressional activity over such a long period of time resulting in legislation which has strengthened and improved education. The Smith-Hughes Act was followed by the George-Reed Act of 1929, the George-Ellzey Act of 1934, the George-Deen Act of 1936, the George-Barden Act of 1946, the practical nurse training program in 1956, the Area Vocational Schools program in 1958, and most recently the Vocational Education Act of 1963.

This year, in 1967, we are proposing new legislation which merits a place among the historical vocational education acts.

Fifty years ago, the co-sponsor of the original Act, Representative Dudley Hughes stated:

"Whatever else may be the function of government, the materialization of the potentialities of its collective citizenry must ever be one of its chief concerns . . ."

The economic and social problems which call for action to assist in the "materialization of the potentialities" of American citizens in 1967 are no less pressing than those which brought about the enactment of the Smith-Hughes Act in 1917.

Current changes in the American economy brought on by new technology, greater mobility of our population, and increased urbanization have resulted in a demand for manpower which can be supplied only if the Nation's schools can constantly improve their educational programs. At the same time, continued technological and economic growth are possible only if our schools prepare young people to meet the demands made of them.

Our schools have been hard pressed to adapt to the profound changes which the new technology is generating in the nature of work. Muscle has given way to brain power. Training in a single highly skilled craft or for a career in a single vocation is giving way to training for a cluster of skills which will permit individuals to adapt quickly to changes in the labor market. The division between the academic and the vocational education programs must give way to comprehensive education programs designed to provide all students with a continuing opportunity to adapt education programs to their individual needs and desires.

All of us must, to some extent, understand and master the man-made environment about us regardless of our vocation or profession. The basic elements which are sometimes called a "general education" are now vital to the education of every citizen. Training in basic skills which will permit young people to enter the labor market is needed by the great majority of high school students.

The tendency to separate general education from vocational education—a separation which met the manpower needs of two decades ago—is now penalizing both those who are college bound and those who plan to end formal education with graduation from high school or junior college. Academically oriented students are directed to those college preparatory courses which will enhance their performance on the college entrance exams. They have little opportunity to acquire a knowledge of the functions of the business and industrial community. At the same time, students interested in a vocational curriculum receive too little opportunity to develop competence in the basic learning skills which they must have if they are to cope adequately with present-day society. They have little opportunity to take college preparatory courses and thus are cut off from a chance for higher education.

Those who plan to go on to college are not all prepared to cope with the question, "What happens if I drop out?" On the other hand, those exposed to current vocational programs may find themselves being trained for a narrow range of job skills and cut off from chances for continuing education. Even if such a student should qualify for his first job, he is still faced with the frequent demand to adapt to a changing labor market. That large segment of our school population which is not enrolled in either vocational preparatory programs or academically oriented programs receives very little in the way of occupational preparation.

Education has become the sole means by which individuals can develop potential for participation in an extremely technical world of work. That potential must be developed in high school students. If high school students do not develop the potential for the acquisition of a variety of technical skills, those same students must be trained in less efficient programs, when there is no longer a market for their labor.

The secondary school system of the United States must be strengthened to enable it to be more responsive to the needs, interests, abilities, and problems of all students and to the current and long-term demands for trained manpower.

This is especially true in the case of disadvantaged students and those students who do not plan to go to college. For disadvantaged students, it may be their last opportunity for formal education. Unless they are stimulated to continue on to college or unless they receive training for employment, it may result in a life of underemployment. For any student who does not plan to go to college, high school also may be the last opportunity to prepare for, or to receive training for, a job.

The importance of education at the high school level and its relation to meeting the Nation's manpower needs can be seen by a study of 10 theoretically typical students. Of 10 who were enrolled in grade 5 in the school year 1957–58, 9 entered grade 9 in 1961–62. Eight entered grade 11 in 1963–64, and 7 actually graduated from high school in June of 1965. In the fall of 1965, 4 entered college, and only 2 will receive their bachelor's degree in 1969. Thus, 8 out of 10 typical students will be seeking employment with less than a 4-year college degree. These statistics, viewed from the Nation as a whole, mean that more than 1 million students drop out of school each year. Less than one-fourth of them are adequately prepared to face the world of work on a long-range basis.

If these students are to develop to their greatest potential as wage earners and as citizens, school programs must be designed to keep them in school and these programs must prepare them to function in an increasingly complex society.

Failure to meet the needs of students in high school results in diminished employment opportunities. Out-of-school youth in the high school age group have an unemployment rate of nearly three times that of the public at large. The unemployment rate among those who fail to finish high school is 50 percent greater than among those who complete high school—in spite of an expanding economy. The problem is particularly acute among students from racial minority groups.

If our schools are to meet this challenge, new efforts must be made to reach a larger number of high school students regardless of whether they are enrolled in a vocational curriculum. Students in junior high school must be given an opportunity to explore the broad range of vocations and professions before they make decisions which decide the whole course of their life. The barrier between the classroom and the outside world must be broken down. Educators must provide leadership in determining the necessary knowledge and skills which will qualify today's students for life roles as employed adults and citizens.

Some of the crucial weaknesses in the education of the disadvantaged and noncollege-bound youth are the lack of:

(1) occupational educational and guidance to provide purposeful exploration and experience leading to career objectives;

(2) vocational guidance for students who have selected a vocation which will assure that the interests, capabilities, and competencies of students are developed in relation to their careers; and

(3) followup for graduating students in order to facilitate the transition from school to work.

The legislation we are proposing would go far in assisting local schools across the Nation in adapting their present education programs to meet our present and future manpower needs.

This proposal will make additional funds available to local schools, State boards, and public and private institutions to assist them in initiating new and innovative occupation-related education programs specifically designed to educate young people who will reach the peak earning periods of their lives with the beginning of the 21st century. It is with occupational education, education-related work, guidance and counseling, and new curricula that we can prepare them to meet the challenges of a constantly changing labor market in a complex society.

The Vocational Education Act of 1963 would be amended to establish a 5-year program of grants to State vocational boards, local educational agencies, and public and private agencies, organizations, and institutions to support the planning, development, and operation of innovative occupational education programs which may serve as models for vocational education programs. During Fiscal Year 1967, $30 million would be authorized. After an initial apportionment of $150,000 to each State, the remainder of the funds appropriated would be apportioned among the States according to relative population aged 15 to 19.

The new program, administered in conjunction with the other vocational education and manpower programs, would make funds available at the local level for such activities as broadening vocational programs, developing comprehensive high school programs, and developing and operating cooperative education programs which will make education-related work available to high school students.

The bill provides four specific examples of the types of projects which would be funded under the amendment.

EXPLORATORY OCCUPATIONAL EDUCATION PROGRAMS

These programs would be designed to familiarize students with the broad range of occupations available to them and to the requirements for careers in the various professions and vocations.

Among the projects might be those in which the school, the parents, and the community would cooperate in efforts to bring the full resources of the community to bear on the needs of all students during the critical period when about one-third of our school dropouts occur.

WORK-EXPERIENCE PROGRAMS

Work-experience programs would provide part-time employment related to the student's educational program or occupational objective to assist in his optimum development and help create a meeting ground between school and employment.

Programs would include cooperative work programs, education experiences through work, regular part-time employment, financial assistance to needy students, and work of social value to the community.

All programs would be a recognized part of the student's educational program with credit, grades, and all experiences recorded as a part of the student's cumulative record.

Such programs would also assist the financially needy student to continue his education; promote a sense of achievement in school-work related experiences; develop school and community recognition of the value of work; and establish better communication channels between schools and employers.

OCCUPATIONAL GUIDANCE AND COUNSELING

Programs would provide continous vocational counseling and guidance to assure that all students' interests, capabilities, and competencies are developed in relation to their career objectives. In concert with the U.S. Employment Service, all students would be assisted in entry job placement when ready to move from school to the world of work. Schools would be helped to maintain appropriate followup records of all students. Students interested in continuing their education would be assisted in gaining entrance to institutions of higher education and in obtaining financial aid.

IMPROVEMENT OF VOCATIONAL EDUCATION CURRICULA

Programs would introduce broad-scale innovative curricular changes to provide realistic occupational training meeting the needs of all youth and adults at all skill levels. The rapidly changing job market requires a constant adaptation of vocational curricular and continous communication between schools and employers for its supply of manpower. The development of new curricula depends on feedback from employers.

Researchers in vocational education are developing new curricula which recognize the changes which have taken place in our economy. Curricula are being developed to—

revise instructional programs for slow learners to improve job placement opportunities;

develop 4-year comprehensive vocational education programs;

establish courses which will act as transitional courses between general education and vocational education;

introduce computer-assisted instruction in technical education;

introduce new training courses in such fields as training for industrial radiographers, health service technicians, bio-medical equipment technology, medical records technicians, scientific stenography, and law enforcement; and

establish training programs for teacher aides.

The time has come for a decision which may well decide the future of millions of American young people. Are our schools going to provide them with a well-rounded education designed to give each person the training and the options necessary to assure that he or she can continue to have maximum flexibility in choices and a wide range of opportunities during the rest of his or her life? Or, are young people to be graduated from high school with little or no preparation for employment and then be required to undergo a complete new retraining program with each change in the labor market demand? Essentially, our education system faces a choice between either educating students to make wise decisions for themselves or sending students into a world of work in which the decision-making process is turned over to the labor market. I, for one, believe that the continued strength and vitality of our society and economy depend directly upon a citizenry which has the education and training to master the world of work rather than be its servant.

Every year more than 2 million young men and women terminate their formal education with a 12th grade education or less. Approximately half of them drop out before completing high school. Of that 2 million young people, less than one-fourth—about 400,000—have some marketable vocational training; the remaining three-quarters leave school with no preparation for a labor market which demands technical skills. It is on this group of students that our secondary school system must focus its attention. It is for these students that new education programs must be designed—designed to hold them in school and graduate them adequately prepared for a rewarding career.

Mr. HOWE. The chairman observed a moment ago that the expansion and improvement of vocational education opportunities is the key to professional opportunity. I would open my testimony by agreeing with his statement.

I would call to your attention to the fact that each year about 2 million youngsters leave high school who do not go on to college.

Some of these are graduated, about a million, and another million are leaving the high schools before graduation. We have an important and successful system of vocational education which serves a portion of these 2 million youngsters, but only a portion.

The legislation which we are bringing before you today is legislation which addresses itself to helping schools find the way to serve the rest of these youngsters.

It is legislation which sets in being the possibility of demonstration projects in local school districts to bring, as Mr. Scheuer said a moment ago, not just innovative aspects into elementary and secondary education; but to mold those aspects with the regular operation of the regular schools and to do this on a demonstration basis allocating the funds by States.

The legislation we are proposing would go far in assisting local schools across the Nation in adapting their present education programs to meet our present and future manpower needs.

This proposal will make additional funds available to local schools, State boards, and public and private institutions to assist them in initiating new and innovative occupation-related education programs specifically designed to educate young people who will reach the peak earning periods of their lives with the beginning of the 21st century. It is with occupational education, education-related work, guidance and counseling, and new curricula that we can prepare them to meet the challenges of a constantly changing labor market in a complex society.

The Vocational Education Act of 1963 would be amended to establish a 5-year program of grants to State vocational boards, local educational agencies, and public and private agencies, organizations, and institutions to support the planning, development, and operation of innovative occupational education programs which may serve as models for vocational education programs.

During fiscal year 1967, $30 million would be authorized. After an initial apportionment of $150,000 to each State, the remainder of the funds appropriated would be apportioned among the States according to relative population aged 15 to 19.

The new program, administered in conjunction with the other vocational education and manpower programs, would make funds available at the local level for such activities as broadening vocational programs, developing comprehensive high school programs, and developing and operating cooperative education programs which will make education-related work available to high school students.

My testimony elaborates further under these major headings of exploratory occupational education programs, work-experience programs, occupational guidance and counseling connected with job entry, and improvement of vocational education curriculums.

I think this is an adequate introduction of the broad principles we are introducing in this legislation and the problems we are hoping it will help to solve.

I would like to ask Mr. Venn to present at this point any further elaboration of his testimony.

Mr. QUIE. May I ask one question?

Mr. PUCINSKI. Certainly.

Mr. QUIE. When you mentioned private institutions, are these profitmaking ones as well?

Mr. VENN. No, unless the local school district contracted with a private organization in their operation of a local project.

Mr. QUIE. Thank you.

Mr. PUCINSKI. We will make your statement part of the record at this point.

(The statement by Mr. Venn follows.)

STATEMENT BY GRANT VENN, ASSOCIATE COMMISSIONER FOR ADULT AND VOCATIONAL EDUCATION, U.S. OFFICE OF EDUCATION

Mr. Chairman and members of the subcommittee; it is my pleasure to appear before you today to present testimony on the amendments to the Vocational Education Act of 1963, entitled "Exemplary and Innovative Programs or Projects in Vocational Education."

During the past two decades an era in our American school system has ended, where students could drop out of school and find employment. Technological changes in this space age labor force now demand that youth must become academically and occupationally competent to enter the world of work. The schools must, therefore, provide opportunities for every student to make the transition from school to the next step either as a beginning worker or to further education.

Exciting things are happening that were not possible a year ago. I should like to review briefly for you some of the accomplishments in vocational and technical education, indicate the new directions of the program, and point out problem areas that we have encountered in administering and operating the Vocational Education Act of 1963.

I would also like to relate these points to the amendments under the Vocational Education Act of 1963 which authorize demonstration projects in the 50 States and Territories. These amendments will provide significant direction for program change and answers to many of the problem areas.

ACCOMPLISHMENTS

One of the significant accomplishments is the rapid growth in enrollments since the enactment of the Vocational Education Act of 1963. The net enrollments have increased from 4,566,390 in fiscal year 1964, the last year before the Act of 1963 became operative, to 6,216,670 in 1966, or an increase of 1,650,289. The pattern of this growth indicates new trends in vocational education. Preparation for more than 450 different occupations is offered throughout the Nation, ranging from short, single-skill programs to two-year post-high school technical programs. The following table indicates the changes that have occurred in the different levels of training:

ENROLLMENTS IN VOCATIONAL-TECHNICAL EDUCATION BY LEVELS, COMPARISON OF 1964, 1965, AND 1966 DATA

Purpose	1964	1965	1966	Percent increase or decrease 1964-66
Secondary	2,140,756	2,819,250	3,169,709	48.1
Postsecondary	170,835	207,201	442,451	159.0
Adult	2,254,799	2,378,522	2,544,962	12.9
Special needs		25,638	59,557	
Total	4,566,390	5,430,611	6,216,679	36.1

Expansion and improvements of programs of vocational and technical education have been seriously handicapped by extreme facility shortages. The provision in the Act of 1963 providing funds for the construction of needed plant facilities and equipment is already making an impact on the kinds and number of programs. New programs in these facilities have justified the wisdom of Congress in providing necessary funds. A total of 689 new facilities or additions have been authorized by States under the provisions of the Vocational Education Act of 1963, and 38 under the provisions of the Appalachian Regional Development Act of 1965. New facilities have been completed or are under construction in all of the 50 States, and the total of 727 authorized by the States under the two Acts will provide space for approximately 1,500,000 students.

NEW DIRECTIONS

Accomplishments are shown by new directions in vocational and technical education. Nationwide emphasis has been given to problems of administration, supervision, and teacher education. Programs for persons with special needs increased 133 percent during the past year.

Enrollments in vocational and technical education programs are shifting to meet the new needs of youth and adults in the Nation's work force.

Agriculture programs now service the new needs of the labor force. In fiscal year 1966, an enrollment of 112,368, or 12.4 percent of the agriculture enrollment was in off-farm occupations.

Home economics programs included 39,489 or 2.9 percent of the total enrollment were in wage-earning occupations in fiscal year 1966. Increasing enrollments in these programs will continue to meet the needs of the total population in a more realistic way.

The following table indicates the shifts in enrollment since the passage of the 1963 Act:

ENROLLMENTS BY OCCUPATIONAL CATEGORY AND PERCENTAGES OF TOTAL ENROLLMENT, 1964, 1965, AND 1966

Occupational category	Fiscal year 1964 enrollment	Percent	Fiscal year 1965 enrollment	Percent	Fiscal year 1966 enrollment	Percent
Agriculture	860, 605	19. 0	887, 529	16. 15	907, 368	14. 6
Distribution and marketing	334, 126	7. 0	333, 342	6. 2	420, 193	6. 8
Health	59, 006	1. 0	66, 772	1. 0	83, 552	1. 3
Home economics	2, 022, 138	44. 0	2, 098, 520	39. 0	2, 032, 216	32. 7
Office	----------	-------	730, 904	13. 5	1, 237, 086	19. 9
Technical	221, 241	5. 0	225, 737	4. 15	257, 973	4. 2
Trade and industry	1, 069, 274	24. 0	1, 087, 807	20. 0	1, 278, 291	20. 5
Total	4, 566, 390	100. 0	5, 430, 611	100. 0	6, 216, 679	100. 0

It is recognized that other patterns of change should be accelerated in areas where the proposed amendments to the 1963 Act will provide needed program changes.

The increase in enrollment is indicative of the needs and interest in vocational and technical education by State and local citizens.

The Federal share per student of the States' allotment invested in programs of vocational and technical education at the secondary, post-secondary, and adult levels for the 6,216,679 enrollees in fiscal year 1966 are shown in the following table:

FEDERAL INVESTMENT IN VOCATIONAL EDUCATION, PER ENROLLEE PER YEAR

Occupation area	Fiscal year 1966		
	Enrollment	Investment	Average Federal dollar invested per student
Agriculture	907, 368	$25, 447, 075	$28. 04
Distributive education	420, 193	6, 945, 482	16. 52
Health	83, 552	6, 208, 023	74. 30
Home economics	2, 032, 216	10, 969, 889	5. 39
Office	1, 237, 086	22, 907, 382	18. 52
Technical education	257, 973	19, 750, 760	76. 56
Trades and industry	1, 226, 969	50, 888, 432	41. 47

EVALUATION

While States, local school districts, and the Office of Education have been busy getting new programs started, we have also been evaluating how programs of vocational education are meeting the purposes of the legislation set forth in the 1963 Act. We know that many accomplishments could be listed but are also aware that more detailed information must be supplied by research projects and studies under way or planned.

The American Institute for Research has recently completed a national study which indicates vocationally trained students get jobs quicker, advance more rapidly, and are as successful in community activities as non-vocational students. A national study by the University of California on State and local administration will be completed in 1967 and should provide essential information for the improvement of administration and supervision at all levels. Other studies of State and local programs by Ohio State and North Carolina Research Centers will assist in providing essential program data.

Recent statistics have indicated that more than a million youth drop out of school each year before graduation and that only 20 percent of our fifth grade students will earn a college degree. We must have more information about the drop outs, other students, and the needs of the Nation's work force to plan and implement programs of vocational and technical education.

The Advisory Council on Vocational Education provided under the 1963 Act has been appointed, has met three times, and has a staff at work. A very thorough and careful investigation at the Federal, State, and local levels will be made to evaluate the program in terms of the purposes of the Act and its effectiveness. A report will be made to Congress and the President by January 1968.

While research, evaluation and the report of the Council will suggest broader changes, there is an immediate need to provide demonstration programs at the local level that will attack problems we know exist.

While the previous statements would indicate that I feel we are making great progress, I think all educators would agree that we still have some serious problems. The first of these is the lack of data and information needed to truly evaluate our programs. A University of Wisconsin study, "An Evaluation of Effectiveness of Vocational and Technical Education in the United States," will provide data on all vocational schools and characteristics of students and teachers.

Second, is the time required to design, construct, and finance new facilities.

The third problem is the fact that Federal vocational education programs have required a 50 percent State and local matching as compared to other federally financed programs which require less State and/or local funds.

A recent study in the State of Washington showed that more than 70 percent of the students and their parents indicated students planned to attend college. Yet national statistics indicate that only 20 percent will actually receive a college degree. Students enrolled in most college preparatory education programs lack entry skills for the labor force.

Fourth is a growing lack of opportunity on the part of young people to get work experience which develops employability skills as well as some necessary job skills.

And fifth is the high rate of unemployment among our teenagers which is running around 14 percent, the highest among the Western Nations.

Last, I believe that the transition from knowing what to do and how to develop programs to carry it out is a major concern in every State.

WHAT THIS AMENDMENT WILL DO

This amendment to the Vocational Education Act of 1963 will provide answers to the problems just outlined. It will do the following:

It will provide $30 million to be apportioned among the 50 States and Territories to provide demonstrations of:

1. Programs designed to familiarize post-elementary school students with the broad range of occupations for which skills are required, including the requisites for careers in such occupations.
2. Programs or projects for students providing educational experience through work.
3. Programs or projects for intensive occupational guidance and counseling during the last years of school and for initial job placement.
4. Programs or projects designed to broaden or improve vocational education curricula.

Through the development and implementation of new and exploratory demonstration programs under this legislation, it is reasonable to expect:

That all students will have a better appreciation of the world of work and their opportunities for employment and purposeful contributions to society.

More involvement by parents, students, the school and faculty in curriculum choices and offerings for the student.

Closer working relations and communications between the business and industrial community and the public schools.

A focus for all students on the educational benefits derived from work experience. The program would be a recognized part of the total school program with recognition through grading and credit for community service work, work experience, cooperative education, and on-the-job training.

A closer working relationship between the employment security service and school systems at both the State and local levels through the placement and follow-up service for all students.

Enlarged educational opportunities for disadvantaged youth regardless of curriculum pursued.

Additions to and improvements of guidance, counseling, and other supportive educational and health services for youth and adults.

That many more students would be involved in year-round programs, by increasing summer work and educational activities for a larger number of students.

That follow up and evaluation of the State's pilot programs would lead to curriculum changes and improvements in all vocational and technical education programs. These changes would improve the opportunities for all youth to participate in a continuous realistic vocational and technical education program geared to their interests, abilities, and aspirations at the secondary and post-high school levels.

That the holding power of the schools would be increased at all levels, with more opportunity for increased academic and vocational experiences, thus decreasing the dropout rates.

The national focus on these preventive programs will assist school systems to more realistically develop programs that would enable every youth to achieve his optimum development and help in the articulation between school and employment.

Mr. VENN. Mr. Chairman and members of the committee, it is my pleasure to appear before you today in behalf of the amendment of the Vocational Education Act of 1963.

I might start by indicating something the Commissioner said, which, in effect, is that in the last two decades we have had a school system closed down in this country; that is, a school system where admission requirements were just a healthy body and strong muscles.

Many youngsters that dropped out entered the labor market where muscle power had some value, learned on the job and became quite well educated and successful.

This system has literally closed down now for many students and young people. This is part of the problem we face and it implies that our schools will have to make some changes, it seems to me, in order to take care of these youngsters so they will be eligible to enter the labor force.

Today I would like to review a few of the accomplishments in vocational and technical education resulting from the Vocational Education Act of 1963, indicate new directions the program has taken, point out some of the problems found in administering and operating the act, and show how the proposed amendments can solve these problems.

One of the significant accomplishments is the rapid growth in enrollments between 1964 and 1966. During those 2 years vocational education enrollments increased 1,650,000 in high school, post high school and adult programs.

This pattern also indicates some new trends. There are 450 different occupations now being taught in the vocational schools of this country. The new trends indicate a new direction in programs. Between 1964 and 1966, there was an increase of 48 percent in programs in high school enrollments, and an increase at the post-secondary level of 159 percent in the past 2 years. The adult program increased approximately 13 percent.

During this past year programs for persons with special needs, youngsters not eligible to get in a regular program, have more than doubled.

Many of these increases in programs and enrollments are the result of the provisions in the Vocational Education Act of 1963 for funds for the construction and equipment of area vocational school facilities. A total of 689 new facilities or additions have been authorized under the provisions of the act and an additional 38 projects under the Appalachian Redevelopment Act of 1965.

Accomplishments are shown by new directions in vocational and technical education. Enrollments in programs are changing to meet the new needs of youths and adults in the labor force. In 1966, an enrollment of 112,368, or 12.4 percent of the total agriculture enrollment, was in off-farm occupations.

Home economics enrollments included 39,489 (or approximately 3 percent of the total), in wage-earning occupations.

The table which appears in the statement you have indicates what has happened. Agricultural enrollments decreased from 19 percent of total enrollments in 1964 to roughly 14 percent in 1966, while distribution and marketing stayed at about 7 percent. Health occupations is now 1.3 percent of the vocational program, and it should be more.

Home economics has decreased in the percentage of total enrollments from 44 percent to 33 percent.

Our office occupations represent the biggest increase because this was added in the 1963 act. The trade and industry enrollments have maintained about the same level.

Mr. QUIE. May I ask a question, Mr. Venn?

Mr. VENN. Yes.

Mr. QUIE. I am surprised at the home economics program. Only 3 percent of the total enrollments were in wage-earning occupations in fiscal 1966. Is that because it was too soon after the change in direction of that program was put into operation? I would expect a much larger percentage would have been in wage-earning occupational training in home economics.

Mr. VENN. We hope a larger percentage will be possible in wage-earning occupations but I think the time factor involved and the need to continue some of the programs already in operation has not made this changeover as quickly as we would like. We hope the new amendments will change the impetus and increase the enrollments in wage-earning occupations in all States.

I think it is interesting to note what the actual cost per student in programs of vocational education has been to the Federal Government. On the basis of cost per student per year, vocational agriculture in terms of Federal dollars cost $28.04 per student per year, distributive education cost $16.52, health occupation is $24.30, home economics has actually cost $5.39 per student per year, office occupations cost $18.52 per student per year, technical education is $76.56 and trade and industry at $41.47.

The research that has been funded by the 1963 act under section 4(c) has indicated some new directions and some new trends that should take place.

One study indicated that students vocationally trained, compared to those without specific vocational training, on leaving high school enter jobs more quickly, advance more rapidly and apparently are participating as much as the general educated student in terms of citizenship activities and participation in the community.

The concept that some people have, that vocational education does not give one a broad education, was not borne out in this study.

We also have programs set up at the University of California gathering essential information on the improved administration of vocational education and study centers at Ohio State and North Carolina University providing essential data for programs.

Recent statistics indicate that a million youths drop out of school each year and we will have another million leave before graduation this year. This presents specific problems because often these young people are not getting into the vocational programs and are not eligible for some of the other programs, presently operating.

I would point out the Vocational Advisory Council required by the act has been appointed and the staff has met three times to look at the whole broad program of vocational education and will have a report available in January 1968.

Now, even in view of some of these new directions and growth patterns, there are still some severe problems that need to be solved. The first of these is a lack of data and information on just what the makeup of our clientele is. We have a study underway at the University of Wisconsin which will attempt to give us basic data on this problem.

Mr. **Brademas.** May I ask when that study will be completed?

Mr. **Venn.** The best information that we have is that it will be completed in about 8 months.

A second problem is the timelag in terms of the design, construction, and raising local funds to build facilities. I think there has been a problem in terms of action at the local level funds.

Administrators need 50–50 matching in vocational education whereas they can move into other programs with only 10 percent local money.

We still have the problem the chairman referred to, which is the fact that a recent study in Washington showed 70 percent of the parents and students indicated that the students wanted to enter college. I think another real problem is a growing lack of opportunity for young people to get work experience, and learn some of the employability skills as well as job skills.

Another problem is the fact that the United States has a higher unemployment rate in its young age group than any of the other Western nations. This may be due to the fact that the majority of the labor force in other Western nations is employed in production of food and fiber as against industrial production in our country.

Last, one of the problems has been in making the transition from knowing what to do to how to get it accomplished at the local level. We believe this amendment, which provides $30 million for allocation among the 50 States, will actually get at the problem by providing demonstration projects in all of the 50 States, specifically geared to youngsters not now enrolled in the vocational programs and who essentially are dropouts because they do not have the opportunity to get the employability skills and job skills they need to enter the labor force.

The program, briefly, has four major parts. Occupational orientation for young people at the junior high school level to make them knowledgeable about what vocational choices there are and the paths to take to achieve their goals.

The Vocational Education Amendments of 1967 would now allow us to reach that level of young people.

These amendments would allow us to make this program available to all students at the high school level, not just vocational students.

We hope the work experience part of the program may be demonstrated not only through youth work projects and cooperative education programs, but that these demonstration projects would involve the kind of work students get on their own during the summer, on weekends, before school and during school, and this would be made part of a school curriculum to the extent that students would get credit and pay for it while they are in school. I think this might create respect for work in our educational institutions.

Mr. QUIE. In the junior high school level?

Mr. VENN. Probably at the junior high school level we might have what we call exploratory work where youngsters would visit different kinds of work programs or be observers. The second level in the high school might be called general experience and would relate to being on time, taking full responsibilities and instruction. The third level in the upper grades would be work experience directly related to their occupational goal.

Mr. QUIE. Don't State laws prohibit youth employment in a number of jobs where they would be employed?

Mr. VENN. Yes. This program would have to take into account the difference in the youth employment laws in each State. However, some State laws permit student-learner situations which are quite different from full-time employment.

Mr. QUIE. Have you studied the youth employment laws in different States and determined what kind of difficulty it will cause?

Mr. VENN. It will cause some difficulty and I think this is the concept of phasing at the various school levels so the work experience relating directly to their education will occur when they are old enough to participate.

It will also build a pipeline from the schools to a segment of our society which the schools have not been communicating with very much in the past. I think change occurs as a result of pressure and, if we get the schools actively involved with employers and business people in the work experience program and in helping these youngsters get their first job, we are going to have a feedback to the schools in developing educational programs which will help bring about the change.

We hope this will result in a closer working relationship with the employment service. The act itself calls for a cooperative relationship and very little, in effect, has happened. In developing these projects we hope each would contain a specific outline of procedures as to how they are going to develop cooperative experience with the employment services to place these youngsters and we would begin to demonstrate how this could be done so these youngsters could move easily and quickly into work from school in a job related to their training and background.

The holding power of the schools would be increased at all levels through these demonstrations and the effects of this would be, as a result of demonstrations in each of the 50 States based on what research has shown, that the neighboring schools would have the opportunity to see what is being done and to develop similar programs themselves.

We know that many times something done in one part of the country as a good demonstration does not affect another part of the country. We hope these demonstrations could be done in large rural areas, suburban areas and in fact, cover the gamut of where our young people are located in the schools and show, through demonstrations, these new approaches, these four areas.

Let me indicate the kind of programs this amendment would support. The common experience is a young girl who in October of her senior year, decides she can't go on to college, or she has a boy friend that is not going, or any number of reasons. Perhaps the only skill course she has taken was a beginning typing course to be used in her college work.

This program should provide a short one-term course to give this girl salable skills in the clerical area, or maybe health or sales areas, since these are the likely places where she would enter the work force.

At the completion of the course, the school would be involved in helping the student make the transition from classroom to job. Also, while taking this necessary training, should the student decide to continue his [or her] education—whether for occupational training in another area or for professional training—the counseling and guidance services of the school would be available to help the student assess his [or her] capabilities and needs and choose the next step to take.

The proposed amendments would make possible such a demonstration project and we would endorse applications from school districts proposing such a program and willing to help finance it.

Thank you.

Mr. PUCINSKI. I failed to mention that with the panel this morning is Mr. Albert L. Alford, Assistant Commissioner, Office of Legislation, Office of Education. Do you have a statement?

Mr. ALFORD. No formal statement; no, sir.

Mr. PUCINSKI. There is one question I want to ask, Mr. Commissioner. While this committee has nothing to do with the subject, it seems to me, under our present Selective Service System we readily give deferments from military service to youngsters attending institutions of higher education but what is the status of youngsters who are in an apprentice program; do you know offhand?

Mr. HOWE. I believe they do not generally receive deferred status for reasons of their educational programs.

Mr. PUCINSKI. Wouldn't you think that certainly some consideration should be given to treating these youngsters on some par or parity as long as they are pursuing a course of study in the trades or the crafts or skills?

Mr. HOWE. I was asked this question when I was testifying the other day before Senator Edward Kennedy's committee, which is looking at the whole matter of the draft. I replied that it seems to me that, although there are real administrative difficulties in establishing this kind of eligibility for deferral, the matter of fairness would require that it be done, if granting of deferrals does continue.

In that same testimony I took the position that educational deferral should not continue.

Mr. PUCINSKI. Two other questions: In the 1968 budget the Office of Education is not seeking funds for the work-study program; I wonder if this is correct and what is the reason for that?

Mr. HOWE. This is correct. The work-study program over the past year or so has been gradually phased out of the Office of Education and into the Neighborhood Youth Corps program which is operated by the Labor Department. The Youth Corps program has both in-school and out-of-school aspects. The assumption has been that by concentrating this activity in one program and by having the Office of Education programs cooperate with it, we would have a work-study program for the benefit of all youngsters in school.

Mr. **Pucinski.** In section 201 of these amendments, we provide the Commissioner with authorization to make grants or contracts with other public or nonprofit private agencies or make contracts with private agencies when such grants or contracts will make an especially significant contribution to obtaining the objectives of this subsection.

Would you have any objection if we tried to broaden that to specifically permit contracts with a profitmaking agency such as an employer or some big corporation that has a big research activity where, if they were able to make some significant contribution, would permit a contract on a cost-plus basis, or on whatever formula you want, to work with a private profit establishment? I wonder if we are wise in limiting ourselves in this important field to public and nonprofit agencies.

Mr. **Howe.** Your question relates to Mr. Quie's earlier question. I would like to qualify the answer given to him. If you look at this language carefully you will see the Commissioner is given the authority to make grants only to nonprofit agencies, but the contract authority permits contracts with profitmaking agencies. It seems to me that it is wise to have this possibility.

I can see a definite advantage to be gained where there is a specific expertise in a profitmaking enterprise for helping to develop a particular kind of curriculum in vocational education, and that is the only place skills are available.

I think the possibility of making such a contract makes sense.

Mr. **Pucinski.** I think your testimony here is sufficient to clarify that point.

Mr. **Quie.** May I ask a question? This means you can contract with a private corporation rather than any public agency to which you make a grant and you could pay them 100 percent of their cost. If you make grants, let's assume that your public or nonprofit organization would pay a portion; is that right?

Mr. **Howe.** I am not sure I grasp your point. In any contract we make, we could pay up to 100 percent of the cost.

Mr. **Quie.** I won't go through any more questioning just now.

Mr. **Brademas.** I have four or five questions which I will put briefly. I hope you can give me brief answers.

First, with respect to the major thrust of your proposal this year, namely, to encourage innovation in vocational education, can you give us any comments on the mechanics, or the shaping and planning of the application for what could be described as innovative projects? An important aspect of title III of the Elementary and Secondary Education Act is the amendment that requires there be conversation on the part of local public school districts representing the cultural and educational resources of the area to be served with a sort of guarantee that they would not be served with something internal. Do you follow me?

Mr. **Venn.** As soon as possible after the legislation is approved, we would furnish local educational institutions examples of what can be done and instructions for preparing and submitting proposals.

Mr. **Brademas.** That is not my question. I was struck by the absence in your testimony of much reference to the involvement of private industry, private business, the users of vocational trained people in the shaping of these programs.

Now, isn't it important that in putting together an innovative project that there be some dialog between the vocational educators applying for the money and the users?

Mr. VENN. Yes, sir.

Mr. BRADEMAS. How do you do that?

Mr. VENN. The project would have to be submitted and evaluated in terms of the business people and users in the local area, with the Employment Service, the OEO agency that might be operating in that community and various other agencies where the schools would need to develop these projects.

Mr. BRADEMAS. Is that a matter of guidelines?

Mr. VENN. Yes, and administrative procedures.

Mr. BRADEMAS. Would guidelines alone be adequate?

Mr. VENN. No; we hope to have available to them examples of those things which have been done around the country and from which they might draw information to develop the project in the local community.

Mr. BRADEMAS. In one statement you refer to the problem of dissemination of the results of research and this would lead me possibly—I am giving you rhetorical questions—to the conclusion that examples are not enough?

Mr. VENN. It is not and that is why we feel it is necessary to have demonstrations on how a project should be developed in a community.

Mr. BRADEMAS. How can we be sure our vocational educators are all operating in the 20th century; that is, they are all abreast of the latest technical and industrial developments so they can give their people the best vocational education information.

Mr. VENN. I think one way is the research that is done. More important, not only vocational educators but all educators in the school system, as well as people in the business community, would be involved in developing these projects which would ultimately serve all of the youngsters.

Mr. BRADEMAS. In one of the statements you talked about the summer training institutes for vocational teachers, but you indicate in that statement these institutes are insufficient in numbers. Let me put my question to you another way. How can we be sure we have an adequate supply of vocational educators in the country?

Mr. VENN. One attempt at this, I think, is the new Educational Professions Act.

Mr. BRADEMAS. You are not asking for much money under that.

Mr. HOWE. Not for fiscal 1968 but we have high hopes of what will happen to this in fiscal 1969. I think in direct answer to your question, we have to say we can't be sure all professional vocational educators are up to date with modern curriculums and procedures. We can tend to push them in that direction and that is exactly what this piece of legislation is about.

Mr. BRADEMAS. I would hope so. We are all interested in that goal but I am trying to get more specifics as to how you get up-to-date teachers, an adequate supply of teachers, how you get vocational people sufficiently abreast of the latest trends in business so they can provide up-to-date, 20th-century guidance and counseling to the students; how you are assured that the applications for innovative curriculums are put together by people who understand what is going on in the industry and they are not fettered to ideas and concepts that are out of date.

Mr. VENN. This legislation would, for the first time, provide for the selection of demonstration projects in each State based on such criteria. Representatives of school districts within a State would then be able to visit, observe and develop similar programs suited to their local needs.

Mr. BRADEMAS. You keep answering me by telling me that you are going to select those projects that seem to meet these several criteria, but I have been pressing you to tell me how is it back at the local level. When you are putting the project application together, can you get some assurance that there will be an awareness of late, recent innovative developments and all the rest of it?

Mr. HOWE. In describing what will constitute an acceptable project application, we will include in the guidelines the requirement, as you suggested, that an appropriate bridge to private employment opportunities and business opportunities, that there be evidence of communication flowing over that bridge, that there be the counseling services offered leading to job placement, and that these elements be included in any project application under this program.

Since the applications are competitive and since we are going to have many more applications than we can fund, we are going to have a situation which will call forth the kind of sponsor you are seeking.

Mr. BRADEMAS. That is what I am talking about. This is an incentive to the local vocational educators to get together with the business industry, local employers, and all the rest.

Thank you very much.

Mr. PUCINSKI. Mr. Quie.

Mr. QUIE. Mr. Howe, is the Pucinski bill the administration recommendation bill?

Mr. HOWE. No, sir.

Mr. QUIE. Are the administration provisions all in title II?

Mr. HOWE. Title II of the elementary and secondary education amendments.

Mr. PUCINSKI. During these proceedings we are going to be taking testimony on title II of the ESES which is now being presented as a separate measure. Also we will be reviewing provisions of H.R. 7380 today both these measures are going to be produced as one bill, so we will then be able to go right through the entire provisions. I think there are strong feelings on the part of the committee that the proposals of title II did not go quite far enuogh to meet the educational vocational needs of this program.

Mr. HOWE. We will be happy to answer that part of the proposals.

Mr. QUIE. As I understand your testimony so far, it was on title II of the Perkins bill, and you have not addressed any of your testimony to H.R. 7380; is that correct?

Mr. HOWE. That is correct.

Mr. QUIE. Are you going to submit formal testimony on H.R. 7380?

Mr. HOWE. We are not planning to submit formal testimony, if there are questions about it in the course of hearing, we would be happy to respond.

Mr. QUIE. I would like to spend more than my 5 minutes on this bill because I think there are excellent proposals in H.R. 7380.

Mr. PUCINSKI. Take your first 5 minutes and we will go around the committee and then come back to you.

Mr. QUIE. In the fellowship section of this bill, where it is proposed to have teachers of vocational education training, have any teachers of title V of the Higher Education Act been utilized in the vocational educational field?

Mr. HOWE. I believe generally not.

Mr. QUIE. So this would then be a field we ought to interest ourselves in and it could not be considered as a duplication of what we are doing now. Is there anything to prevent granting fellowships under title V of the Higher Education Act in this field?

Mr. HOWE. The situation is a little muddied because we are bringing up this request for broader authority under the Education Professions Development Act.

That will give very broad authority including the area of training in vocational education.

Mr. QUIE. The proposal of H.R. 7380 may have some duplication of your proposals in the Higher Education Act?

Mr. HOWE. At least in terms of authority there is duplication.

Mr. QUIE. Now, in your innovative program, which is the title II recommendations, can grants be made to local agencies without approval of the State board?

Mr. VENN. Yes; they may be under this bill. If you will allow me, I would like to explain how we expect to involve the States and local agencies in the administration of this program.

An advisory committee would be established to review project applications and submit their recommendations to the Commissioner. Membership of the committee would be composed of a member of the department of education of the State in which the applicant is located, representatives of the Department of Labor and Office of Economic Opportunity, and objective noninvolved people selected for their competencies in the areas covered by the proposal. After the Commissioner accepts the committee's recommendation, the proposal would be sent to the State for concurrence. Should the State not approve the project for funding, the Commissioner would be notified. In this event, the projects would be reviewed again and another selection considered.

Mr. QUIE. Aren't the States concurring in vocational education administered by State boards?

Mr. VENN. This amendment proposes specific kinds of demonstration projects in certain areas and we hope to select, through this process, the most able administrative units in each State, the most able schools, and most able secondary units to demonstrate these kinds of things.

Mr. QUIE. Are you fearful that some innovative program which might be developed in the Office of Education and has the approval of, say, the State board of New York (would not be approved) if some member of their State served on your National Advisory Board?

Mr. VENN. No, sir.

Mr. QUIE. Then why don't you continue what we had in the act before: that is the necessity of State approval of the project? I should think you would get away from a great deal of controversy and opposition and feeling of endangerment by the States?

Mr. **Venn**. There is a feeling of endangerment. There is the problem at the State level, of course, of a much larger demand than the funds would finance. We would hope through this process that we could focus enough money in any one project to literally show the best methods and newest techniques to get the job done.

Mr. **Quie**. You are suggesting that I was saying only the projects recommended would be funded. I am really saying why shouldn't the States have the final right of approval. If the program is something they don't want at all, why should they not be permitted to express that voice?

Mr. **Venn**. Under the administrative procedure of their having concurrence, they would be able to turn down any project in this program that they did not feel was satisfactory.

Mr. **Quie**. Would it be all right if you wrote that into the act?

Mr. **Venn**. I see no reason why it could not be written in, although I think in the administration of the program we will be able to see all the problems involved and I would hope we could maintain flexibility without guaranteeing specifically how.

Mr. **Howe**. May I make one point? I think there is a need, as Mr. Quie suggests, for the involvement of the State board, in the operation of the program in the State. Mr. Venn prescribed a procedural arrangement we would set up to bring the State into the picture. The capacity of different States to mount an innovative program differs. The personnel resources available to some States in their State departments of education are not as great. They have not been as well funded by their legislatures. The leadership elements may be more restricted in some States than others.

Therefore, in mounting of innovative programs as the Congress did in connection with title III of the Elementary-Secondary Education Act where we want to encourage the innovative elements to come forth, it may make sense in starting such programs to have a concurrence arrangement by the State board of some kind but not depend on the State board to bring forth the innovation.

I think there is a need for the kind of arrangement that we have in title III of ESEA, either in the legislation, as you suggested a moment ago, or in our administrative regulations. I wouldn't quarrel about it.

Mr. **Pucinski**. Mr. Carey.

Mr. **Carey**. Thank you, Mr. Chairman.

I believe, Commissioner, I share some of my colleagues' concern, in every way to adhere to the successful experience we have had in bringing about vocational education in contact with the States. There is no sense in departure from this pattern of Federal-State cooperation, is there?

Mr. **Howe**. No, sir.

Mr. **Carey**. The major concern in your statement, I hope this program is not going to be assigned to one of those myriad of new programs that seems to have the fate of myriad programs that generate very high hopes but are funded at levels less than necessary to achieve even the minimum level of these hopes.

Now in this program you seek an authorization of $30 million; is that right?

Mr. Howe. Yes, sir, and we have a $30 million appropriation request in the President's budget for this program.

Mr. Carey. Of this, about $7½ million goes to the basic State grant; is that right?

Mr. Howe. Right. We can give you a table of State eligibility.

Mr. Carey. Would you indicate what that would be for, say, New York and California?

Mr. Howe. New York, $1,982,000, these are round figures, California, $2,128,000.

Mr. Carey. Would the State plan have to reflect the kind of response to weaknesses indicated in your statement on page 6, in other words occupation-vocational guidance, vocational guidance and followup, would these be necessary to secure this money?

Mr. Venn. No, sir, that would not be necessary as part of the State plan. It is a separate program.

Mr. Carey. What does the State plan have to comprise to claim this money; how free is the State to generate a plan?

Mr. Venn. The State is completely free to generate a plan for these specific projects. The regular State plan applies to the previous Vocational Educational Act and any State would be free regardless of its present State plan to apply for projects under the amendments.

Mr. Howe. Let me clarify this amendment. There is no State plan in this amendment. This is a project proposal. The State plan will, of course, continue in operation as it has.

Mr. Carey. If the State of New York used its entire $1.9 million to train people for law enforcement, could they do it?

Mr. Howe. If such a proposal brought with it the various elements of connection to employment opportunity in connection with the guidelines outlined in this legislation, we would certainly consider it.

It would seem to me it would be unlikely you would focus on a particular activity, which is not as connected to the realm of employment in a broad way as an activity which embraced private economic interests where most people are going to seek employment. This would be a very unusual one.

Mr. Carey. It might be unusual, but it might be an opportunitive career for those who could qualify to go into the employment field.

Mr. Howe. We would want to examine it.

Mr. Carey. Of the 1 million students in the dropouts, how many are young men and how many young women?

Mr. Venn. I don't have it but we can get it, there is a higher proportion of young men than young women.

Mr. Carey. You mean the monthly count of unemployables, the majority are male?

Mr. Venn. Yes, sir.

Mr. Carey. I don't think the Department of Labor agrees with you on that.

Mr. Venn. I am speaking of the dropouts.

Mr. Carey. The dropout age group that you are depicting here, I think our statistics from the Labor Department maintain there is a much higher percentage of unemployment among females.

Mr. Howe. I think we are talking of two different figures. They should be related. We will submit figures on that.

(The information follows:)

HIGH SCHOOL GRADUATES AND DROPOUTS, 1965

Table I from the National Center for Educational Statistics, U.S. Office of Education, dated July 15, 1966, indicates the procedure used by the Office for determining school dropouts. As compulsory school attendance laws keep most children in school through the fourth grade, the fifth grade is used as a base line for determining school retention and dropouts. To establish the base line, the fall enrollments as reported by the States is totaled annually for fifth grade pupils. Eight years later the dropouts are determined by deducting the high school graduates from the group entering the fifth grade for a specified year.

The total number of pupils, those entering the fifth grade, and those graduating includes those enrolled in public schools and non-public schools.

As shown in Table I, fifth grade enrollment, no attempt is made to separate the enrollments according to sex; however, slightly more than half of the 1965 high school graduates were females.

TABLE 1.—ESTIMATED FALL ENROLLMENT IN 5TH GRADE COMPARED WITH HIGH SCHOOL GRADUATES 8 YEARS LATER: UNITED STATES, 1948-56 TO 1959-67

[In millions]

Fall of— 1	5th grade enrollment[1] 2	School year 3	High school graduates 4	Dropouts, 5th grade to high school graduation (column 2 to column 4) 5
1948	2.4	1955-56	1.4	1.0
1949	2.4	1956-57	1.4	1.0
1950	2.5	1957-58	1.5	1.0
1951	2.7	1958-59	1.6	1.1
1952	2.9	1959-60	1.9	1.0
1953	3.0	1960-61	2.0	1.0
1954	2.9	1961-62	1.9	1.0
1955	2.9	1962-63	2.0	.9
1956	3.3	1963-64	2.3	1.0
1957	3.7	1964-65	2.6	1.1
1958	3.6	1965-66	[2] 2.6	1.0
1959	3.6	1966-67	[2] 2.7	.9

[1] Compulsory attendance laws keep virtually all children in school at least until the 5th grade.
[2] Preliminary data.

Note: Includes public and nonpublic schools in the 50 States and the District of Columbia.

Source: National Center for Educational Statistics, U.S. Office of Education, July 15, 1966.

TABLE 2.—HIGH SCHOOL GRADUATES, 1965

	Number	Percent
Male	1,302,438	49.4
Female	1,332,662	50.6
Total	2,635,100	100.0

Source: Digest of Educational Statistics, 1966, table 62. U.S. Office of Education.

Note: Percentages were computed from data contained in table 62.

The Bureau of Labor Statistics, U.S. Department of Labor, in conjunction with the Bureau of the Census, uses a different technique in its study of school dropouts. In a special labor force report for the one-year period ending October 16, 1965, and using a sample of 35,000 households in 357 areas of the nation, the Bureau of Labor Statistics estimates that there were 682,000 dropouts during the 1964–65 school term. Of this number, 361,000 dropouts (52.9%) were male and 321,000 (47.1%) were female. In terms of employment and unemployment, the following tables show in detail the status of the 1965 graduates *who were not enrolled in college* and the dropouts during the 1964–65 school year as of October 1965.[1]

TABLE 3.—STATUS OF 1965 HIGH SCHOOL GRADUATES NOT ENROLLED IN COLLEGE AS OF OCTOBER 1965

	Graduates		Employed			Unemployed			Not in labor force		
	Number	Percent of total	Number	Percent of total employed	Percent of total graduates	Number	Percent of total unemployed	Percent of total graduates	Number	Percent of total not in labor force	Percent of total graduates
Male	536,000	41.1	452,000	48.2	34.6	36,000	27.1	2.8	48,000	20.5	3.7
Female	769,000	58.9	486,000	51.8	37.3	97,000	72.9	7.4	186,000	79.5	14.2
Total	1,305,000	100.0	938,000	100.0	71.9	133,000	100.0	10.2	234,000	100.0	17.9

TABLE 4.—STATUS OF 1964–65 SCHOOL DROPOUTS [1] AS OF OCTOBER 1965

	Dropouts		Employed			Unemployed			Not in labor force		
	Number	Percent of total	Number	Percent of total employed	Percent of total dropouts	Number	Percent of total unemployed	Percent of total dropouts	Number	Percent of total not in labor force	Percent of total dopouts
Male	361,000	52.9	241,000	73.7	35.4	58,000	65.2	8.5	62,000	23.3	9.1
Female	321,000	47.1	86,000	26.3	12.6	31,000	34.8	4.5	204,000	76.7	29.9
Total	682,000	100.0	327,000	100.0	48.0	89,000	100.0	13.0	266,000	100.0	39.0

[1] Persons who dropped out of school between October 1964 and October 1965.

Based on the data available from the cited sources, the following observations are pertinent.

Neither the Bureau of the Census nor the National Center for Educational Statistics seems to separate enrollments by grade level in the early years.

Reports from the States show that slightly more than half of all high school graduates in 1965 were female—1,332,662 girls and 1,302,438 boys.

The Department of Labor estimates the number of dropouts on an annual basis and the Office of Education follows a student from the fifth grade through high school graduation. Thus, during an eight-year period, the schools—public and non-public—lose approximately one million boys and girls.

For the twelve-month period ending October 1965, approximately 52.9 percent of the school dropouts were boys and 47.1 percent girls.

Of the boys and girls who finished high school and did not go to college, approximately 71.9 percent were employed in October 1965 compared to 48 percent of the dropouts.

Among the 682,000 dropouts for the twelve-month period ending October 1965, approximately 35.4 percent of the boys and 12.6 percent of the girls were employed.

Among the unemployed, approximately 8.5 percent were boys and 4.5 percent girls. Only about 9.1 percent of the boys had not entered the labor force compared to 29.9 percent of the girls.

Mr. CAREY. If a State takes all the female dropouts and sets up a nurse or other health-related training system for those, would this be permissible under the project grant application system?

Mr. HOWE. I think, as a demonstration project, there is not enough money to do this throughout the State, but, as a demonstration project, this would be the kind of thing leading to employment professions that would be of interest.

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[1] *Special Labor Force Report No. 66: Employment of High School Graduates and Dropouts in 1965*, Table 2; United States Department of Labor, Bureau of Labor Statistics Reprint No. 2489 from June 1966 Monthly Labor Review.

Mr. CAREY. This goes to my first question; we know where the employment opportunities are, we know where the gaps are to prepare people for these job opportunities.

We have statistics to show that those dropouts can be trained, directed, and aimed at career-type employment if they could get a little more guidance and vocational training, yet we embark on this with a $1.9 million project total for the State of New York where I suppose we could use 10 times that much.

Why do we take such meager steps toward an obvious goal?

Mr. HOWE. It is a demonstration proposal, it is not designed to provide services throughout the State. That is the purpose of the existing vocational legislation which is funded at a much higher level. The purpose of this proposal is to bring into being demonstrations which will show different patterns of education with newer, more innovative approaches to what is taught and the way it is taught so the regular teaching system and vocational system can both learn from the projects.

Mr. CAREY. Have you or Mr. Venn had contact with the Great Cities School Leadership group?

Mr. HOWE. Yes, sir.

Mr. CAREY. Are they substantially in support of this program?

Mr. VENN. Yes, sir, they are. I have discussed this with them personally on two different occasions.

Mr. CAREY. Would you compare the expected allocation from the State and, if possible, from the city of New York, as to the present program being carried on by the city and State at the time of funding of those programs with your level of funding?

Mr. HOWE. There is no allocation to any school district in this program.

Mr. CAREY. Let's take New York for an example, I think you will find in one of the sophisticated school systems like New York or California, the State is already doing more and has been doing more things of this kind for many, many years?

Mr. HOWE. We agree and would like to help them.

Mr. CAREY. What you are trying to do is interpret a program going on to the technically oriented school systems like New York, California, and other States.

Mr. HOWE. And make opportunities generally available in every State.

Mr. PUCINSKI. Mr. Goodell.

Mr. GOODELL. Thank you, Mr. Chairman.

Welcome, gentlemen, to the committee.

Dr. Howe, you indicated that the work-study program was not budgeted this year because of the Neighborhood Youth Corps in school program. Are you recommending repeal of the work-study education program?

Mr. HOWE. Let me clarify. We have not recommended repeal of authorized legislation.

Mr. GOODELL. Is there any particular reason, you don't want to fund the program, you are obviously going to suspend it for fiscal 1968, is there any reason you don't want it repealed?

Mr. HOWE. The act comes up for renewal, the Vocational Education Act, that portion authorizing the work-study program in 1968. It seemed to us that that would be the time to examine it after we had moved into the first year of operation on the Neighborhood Youth Corps basis.

Mr. GOODELL. I understand. The original funding of this project had widespread support in our committee. You had $25 million in fiscal 1966?

Mr. HOWE. I think in 1966 it was $25 million, this year it is $10 million, if I recall correctly.

Mr. GOODELL. My understanding was that this was received with considerable enthusiasm and was working pretty well. What is your reaction to that?

Mr. HOWE. We think it was working well, we think you could make an argument for this decision reached to put somewhat similar activities under one umbrella in the Neighborhood Youth Corps.

I think we will know more about that experience as it operates in fiscal 1968. I would draw your attention to the fact that we have a major study committee looking at the whole picture of vocational education which will report to the Congress through the President on January 1, 1968. So, prior to considering some of these items, the Congress will have a comprehensive review of vocational educational education.

It seems to us, in introducing this one amendment, the idea of promoting experimentation and innovative projects in vocational education was so important we ought to advance it without awaiting the results of that study.

Mr. GOODELL. I would like to express a little skepticism about the decision to cut back spending on the program. It was received enthusiastically and seems to have been effective and yet your administration wants to put in another program administered on an entirely different basis.

Let me ask you in connection with the Pucinski bill, H.R. 7380, do you favor the authorization for fiscal 1968 of $400 million?

Mr. HOWE. I would like to wait for the review of the committee in terms of looking at the adequacy of overall authorizations here so that I am really not prepared to comment on that. It does seem to me generally there is a need for additional funding in vocational education.

I just can't comment on specific amounts because I am not really fully aware of the implications of increasing this particular authorization.

Mr. GOODELL. I agree with your comment that you need more money in vocational education, I also agree with the recommendations in the Pucinski bill that we should move to a $400 million level. I don't know that there is any magic in the figure of $400 million but it seems to me that there is a failure of priorities here, the administration is not recommending we spend more money in vocational education.

This has been a largely successful program, I think it has a potential of meeting many expanding needs of our society.

You point out the 14-percent unemployment rate of young people in this country, I might emphasize that 14-percent figure has remained at 14 percent almost steadily for the last 6 years, perhaps prior to that, but it rose rather significantly in the late 1950's to about this level in 1960 or 1961 and has remained there.

This means there is some kind of failure in our society in the transition of young people from school into the productive flow of the economy. It does not seem to me a time to cut back on programs or cut back on a promising expansion of the programs that are apparently doing something good?

Mr. HOWE. I don't think we are cutting back on vocational education. What we are doing here in fiscal 1968 is to continue the levels of support we have had for the regular vocational education programs and seeking to add what is a substantial program for its first year.

I would expect, without being able to give you figures, that this $30 million we are requesting would have some increases in future years.

Mr. GOODELL. As a final point in my 5 minutes, I would comment that the last 2 pages of Mr. Venn's testimony, 2½ pages outlining what you expect to accomplish with the $30 million, if you read through that you would expect that these things would be accomplished in part by spending $225 million a year at the Federal level for vocational education and it makes one wonder what we are doing with the $225 million.

All of these seem to be obvious things that should be done by the vocational educational program itself.

Mr. VENN. In recent years a few schools have been offering programs such as the amendments would provide. Previously, the public thought of the schools as an agency to select those students who would go to college and the college that flunked out the most freshmen seemed to have more prestige. As a result of this pattern, most youngsters were not given training necessary to enter the labor force. These amendments will provide for demonstration projects which will show how every student can stay in school, finish their training, gain work experience and be more capable to move from school to the work force.

Obviously the $30 million cannot accomplish all of the items listed at the end of my statement. They are illustrative of the types of demonstration programs that could be developed in the States. Hopefully, other schools would use these projects to develop programs suited to the needs of their local district so that eventually all the students would benefit.

Mr. GOODELL. What can you do under your proposed amendment that you can't do under existing law, particularly under the present provisions for 10 percent used for experimentation, developmental or pilot programs?

Mr. VENN. We can reach a younger age group and give them orientation into the broad range of acceptance for which skills are required.

Mr. GOODELL. I don't see anything in the existing provisions of law that limits you in the age group.

Mr. VENN. It is limited to those in the vocational programs in high school and post-high school. The amendments allow us to work with students not in the regular vocational program.

Mr. GOODELL. If I may read this section so it clarifies the record, "Ten per centum of the sums appropriated pursuant to section 2 for each fiscal year shall be used by the Commissioner to make grants to colleges and universities, and other public or nonprofit agencies and institutions, to State boards, and with the approval of the appropriate State board, to local educational agencies, to pay part of the cost of research and training programs and of experimental, developmental, or pilot programs developed by such institutions, boards, or agencies, and designed to meet the special vocational education needs of youths, particularly youths in economically depressed communities who have academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education programs."

Is it your contention that this is limited to meet the special vocational educational needs of youth?

Mr. **Venn.** You are correct. Funds under this section of the act may be spent for research and for programs designed to meet the special vocational education needs of youths, particularly the handicapped youths. The majority of these funds, however, are used for research and very little goes into these other programs. More important, however, is the fact that all programs and services provided by the act are limited to vocational education students. The proposed amendment would provide for demonstration programs which would reach all the students.

Mr. **Goodell.** What you are saying is, you need the $30 million, not a new authority provided for in your amendment?

Mr. **Howe.** We at least need a clarification because the whole direction of the existing legislation is toward those students who are classified within the schools as vocational students. We are seeking to reach through these demonstration projects a group of students who may have no such classification, and who may not be served by the existing academic programs. The introduction into the schools of demonstration efforts may result in a portion of their programs being vocational in nature.

I think that we are going beyond the intent of that authorization in section 4(c) and that it makes sense to seek this kind of amendment to place a project grant enterprise into being.

Mr. **Pucinski.** We will come back at this point, gentlemen, our time has expired.

Mr. **Goodell.** I would like to conclude; I won't come back to this part. I don't see anything in the language that gives you the authority now that limits you to vocational students. The language of present law provides "particularly youths in economically depressed communities who have academic, socioeconomic handicaps that prevent them from succeeding in the regular vocational education programs."

It appears to me it was our intent that you have broad authority here for demonstration experimental programs meeting the needs of all the youngsters, not just those who happen to be technically enrolled in vocational courses.

Thank you, Mr. Chairman.

Mr. **Pucinski.** Mr. Meeds?

Mr. **Meeds.** Thank you, Mr. Chairman.

I woud like to take this opportunity to welcome before the committee the Commissioner of Education and the Associate Commissioner of Education and point out that we take simple pride in being associated with—not that I want to discount the Commissioner—but the Associated Commissioner of Educate is from my home State of Washington and near my home district.

We are happy to have you back here.

I would like to direct a few questions, if I may, to Mr. Venn for the purpose of perhaps reorienting the discussion.

Are we not, Mr. Venn, talking about a specific program which is directed at a special problem which has been discovered or at least highlighted by recent experimentation and findings by the Federal and State departments of education?

Mr. VENN. That is correct. We are talking of a program for the development of youngsters while in school rather than one of remediation for those who have dropped out and need occupational training to enter the world of work. If we can begin to work with students at the junior high school level, acquaint them with the many occupations for which skills are needed and the requisites for careers in these occupations, and give them counseling and guidance to help them make choices as to their educational needs and goals, we will be helping to build a bridge to high school for those who are potential dropouts. Some vocational education would be provided for all students—even those who are college bound. For those whose immediate goal is a job after graduation, extensive occupational and skill training would be given, work-experience opportunities made available, and job counseling and placement services provided by the school to help the student make the transition from school to the work force.

Mr. MEEDS. This is a response to something more final. Certainly this committee found last year in its hearings in this field that there are a number of people in this field who are reaching the high school stage who could have and should have had counseling and direction at the seventh- or eighth-grade level or at least the knowledge that in high school certain programs should be available for them and thus induce them to stay in school until they reach that stage; is that right?

Mr. VENN. Yes, sir; I think most youngsters that drop out of school in the early high school years, made up their mind 1 or 2 years earlier to leave. We need to get to them before that occurs.

Mr. MEEDS. Now, in following up some of Mr. Quie's and Mr. Goodell's questions, a question was asked about the State agency's connection with these plans, correct me if I am wrong, but I envision it as similar to the title III programs in the original plan where the development of the plan would be by the local school district with the cooperation and coordination of the State legislative agency and forwarded through the State education to the Federal?

Mr. VENN. Yes; the program would be developed in the local school district.

Mr. MEEDS. So, the State will not be going to a local school district and say, "Here is the kind of plan you are going to be making." The initiation will come from the local school.

Mr. VENN. Yes, sir. We think this will bring out the best and strongest proposals from every State.

Mr. MEEDS. That proposal will be directed to these specific things in the specific program that you are submitting here under your proposed amendment of title II.

Mr. VENN. Yes. The proposals would be concerned with the problems the State people tell us still exist and would demonstrate how schools can solve these problems.

Mr. MEEDS. This, as I understand it, is a demonstration program which is designed to work in these specific areas, not to try as a cure-all of the whole problem or all the problems in the field of vocational education, it is a specific rifle approach to a problem?

Mr. VENN. That is right. We are trying to initiate programs which the allocations to the State under the regular act cannot find, focus on specific problams, and provide money to demonstrate how these problems can be solved.

Mr. MEEDS. This should be distinguished from the Vocational Education Act of 1963 insofar as this is 100 percent financing by the Federal Government?

Mr. VENN. The amendment provides for Federal financing of part of the cost of these projects. This means that there would have to be some non-Federal support for each project.

Mr. MEEDS. Whereas under the Vocational Education Act of 1963 we are talking of matching formula with the States of 50–50, are we not?

Mr. VENN. That is right. This could provide most of the costs of each project and would be on an individual project-by-project basis. The Vocational Education Act of 1963 does require 50–50 matching and I know often, as a former superintendent of schools, that it is really hard to get the local 50 percent for a new program when there are many local pressures to expand a program already there.

Mr. MEEDS. Mr. Chairman, I would also like at this time to advise the Commissioner and the Associate Commissioner that I certainly expect to request that they appear and address themselves to the other proposals which are being made as amendments to the Vocational Education Act of 1963 and are retained in Mr. Perkins' and Mr. Pucinski's bill and we ought not consider this, without a complete review by the Department as to its suggestions regarding these proposed amendments, because this committee is certainly going to be considering a much broader range of problems than you gentlemen have addressed yourselves to this morning.

Mr. HOWE. If I may respond briefly, I am sure there are many worthy proposals in the bill to which you refer. We have some reservation about moving too rapidly even though we see merits in some of them because we do have in operation at the present time this major study of the entire picture of vocational education requested by the Congress. A report is coming to us on this subject as of next January 1.

We believe that we should look at that report before we seek major restructuring of vocational education.

Mr. MEEDS. Mr. Commissioner, you are not going to tell me you don't think for 1 minute there is a very substantial need in the field of fellowships, scholarships, and administrative grants for vocational educators and administrators?

Mr. HOWE. I think there is a substantial need. This is one of the reasons we have broad legislation this year asking for the broadening of our entire authority for training personnel in education in every aspect. This is one of the reasons we included in that legislation a requirement that the Commissioner identify 5 years ahead of time the major personnel shortages and needs in education and address his commitments to other institutions and agencies to make use of those kinds of studies.

Mr. MEEDS. What kind of proposals are you referring to?

Mr. HOWE. Those proposals are part of the higher education amendment and so-called Education Professions Development Act.

Mr. PUCINSKI. Will the gentleman yield?

Mr. MEEDS. I want to make sure, are you including in that with your testimony and support to mean that vocational technical education be included in those scholarships, fellowships or grants, administrative grants?

Mr. HOWE. It is specifically named there. Our testimony will address itself very broadly to all the personnel needs of education. We have not yet testified on that.

Mr. PUCINSKI. I want to point out to the Commissioner that while I certainly appreciate what you are saying here, a close study of title V, the Education Professions Development Amendment to the Higher Education Act of 1965, provides a lot of things to be included in such teacher training programs; but it does not, at least I can't find anything in here that specifically provides any hard funds for training of people in vocational education or, as far as that goes, any hard funds for anybody. You have a big program here that will encourage people to go into teaching and various other programs but I don't think they zero in on the very problem that Mr. Meeds raised.

Mr. HOWE. You are quite correct; there is not a specific set-aside here for any particular category of professional service to education. There is, however, built into that proposal the principle that the Commissioner is directed to seek the categories of greatest shortage ranging from administrative positions to teaching professions to preprofessional positions and to act on the basis of hard information about the needs of education generally in providing training opportunities.

Mr. MEEDS. Mr. Chairman, I certainly hope the Office of Education will take a long, hard look at the work-study program and the cutback which will occur this year, not at your behest, but which will occur under the fiscal year 1968 HEW appropriation bill.

In our hearings last year and certainly in my conversations with vocational educators, this has been one of the most successful programs of the entire Vocational Education Act of 1963, and I think we are certainly going to take a long, hard look at decreasing the funds under that portion of the act.

Mr. HOWE. Yes, sir; we will certainly look at the experience which develops as the Neighborhood Youth Corps assumes major responsibility for that kind of activity.

Mr. MEEDS. Mr. Chairman, I again want to note that I am requesting of the chairman and this committee that the Office of Education be asked to come in and address itself to the other portions of the bill, perhaps at a later date as we get into the hearings.

Mr. PUCINSKI. This will be done.

Mr. Scherle?

Mr. SCHERLE. Thank you, Mr. Chairman.

Commissioner Howe, someone not too long ago made the statement that education is too important to be left to the educators and in the time I have sat on this committee, it has become increasingly obvious that you believe the same thing.

Why is it so important that in the field of education the States have to consistently prove to you or your office that they are capable of dealing in the field of education without giving them the prerogative to do this on their own?

Mr. HOWE. In response to the quotation you cited that education is too important to be left to the educators, that was first said, as far as I know, by my predecessor Mr. Keppel.

Mr. SCHERLE. Right.

Mr. HOWE. I have gotten in trouble with my educators by quoting him subsequently.

In response to your question, which implied that we were perhaps not leaving decisionmaking to the State departments of education requiring various stipulations of them before Federal funds are made available, in general the provisions for the submission of State plans, or for other requirements that the Federal Government makes prior to funds being made available to the States, these stipulations are laid on them through the acts of Congress and essentially we administer the acts of Congress.

The Congress has generally been in the position, as the administration has been, of making funds available for a particular purpose. Congress has wanted to address itself to those matters which seemed to have significant priority for attention. Congress, in looking at the problems of disadvantaged youth or the problems of youth needing vocational education, or the problems of youngsters trying to pay for their college education, has created legislation which attempts in each case to address itself to a particular problem.

The only requirements that are made of either institutions or States are that they must carry out the expressed intent of the Congress. We leave just as much discretion near the activity within the States or local communities as possible.

I think the record shows that there is a very high degree of discretionary use of funds by States and by local communities. Take the single, largest program that we administer, title I of the Elementary and Secondary Education Act. Once the qualification of a local school district being eligible for these funds is established, we have no control whatsoever over the exact expenditures.

The local school district describes its plan and sends this plan to the State and the State approves it for the project it will carry out. Similar plans may be found in other projects, including vocational education which we are discussing here. I wouldn't want to accept the implication of your question which is that administratively we may be in some fashion laying added requirements on the States beyond what the Congress has done.

Mr. SCHERLE. Do you operate under rules and regulations established by your own department in conformity with congressional regulations?

Mr. HOWE. We operate under rules and regulations we set up to provide more detailed interpretation perhaps than in legislation; but the whole purpose is to express the intent of Congress. We go to the legislative history to determine that intent.

We, of course, use the legislation basically to determine that intent and, if there is any instance in which our rules and regulations are contrary to the intent of Congress, either as expressed or implied, we would like it called to our attention. We try very hard to do what you say.

Mr. SCHERLE. Do you actually feel where the educational needs vary in all 50 States that you are in a better position to decide these needs than the educators in their different States?

Mr. HOWE. No, sir; I don't feel we are at all. This is why we try to make our regulations expressing our intent as broad as possible and leave discretion for the nature of investments and the kind of activities to be carried on with local school districts or with States or higher educational institutions.

Mr. SCHERLE. If this be true, then under this demonstration program you are talking about now, who or why are you to judge whether or not the program established by each individual State is good or bad?

Mr. HOWE. This being a demonstration program is going to have a wider eligibility than can be funded presently. There has to be a process for selecting which projects will be funded and, essentially, this is a question of judgment about excellence. We are proposing, as Mr. Venn said a moment ago, to involve the States with us in making determinations as to which projects shall be funded.

Mr. SCHERLE. If this program is established by one individual State, submitted to you, you will either have the life-or-death decision over the initiation of that program?

Mr. HOWE. The final decision as to whether a project will be funded will rest under this program with the Commissioner but, as in so many other programs, the Commissioner has for the award of an institute for training, for the award of title III grants, the advice of representative committees involving people from local communities, from States concerning local education.

They will be a part of that decisionmaking process and I would point out to you in a similar program, title III of the Elementary and Secondary Education Act, the advice of the States is followed in the very, very high proportion of cases. It is only the rare exception where this advice is not followed.

Mr. SCHERLE. Could you tell me approximately how much jurisdiction remains at the State level in the field of education?

Mr. HOWE. Practically the entire determination of what shall go on within the schools, in fact the entire determination of what shall go on resides in the States. The State typically farms this out to the local school district.

There are certain requirements the Congress has set up for the receipt of Federal funds. These vary with each agency. The Federal funds now constitute about 8 percent of the total funding of elementary and secondary education; 92 percent comes from State and local sources. So it seems to me that there is a rather minor involvement both in decisionmaking and funding by the Federal Government.

All the Federal programs are directed to using State and local decisions.

I think sometimes counterclaims are made about this and people making counterclaims occasionally make them on the basis of certain enactments of Congress, which we must administer. For example, we can't allow Federal funds to flow to a school district where racial discrimination is being practiced.

Congress said this in title VI of the Civil Rights Act. That is an obligation we have.

Mr. SCHERLE. Is there a move underway to take the extension service out of land-grant colleges and place it under the Office of Education?

Mr. HOWE. Not to my knowledge. There is certainly not a move by the administration. There may be a move, I have not heard of.

Mr. PUCINSKI. Mr. Scheuer.

Mr. SCHEUER. I have enjoyed your testimony and that of your colleagues very much. It is always stimulating and provocative.

There has been considerable discussion and considerable action last year in that great area of opportunity for employment, in the field of aides in various categories of public service.

Now, under title I of the Elementary and Secondary Education Act we have about 122,000 or 123,000 education aides; and others, funded on a demonstration program under the poverty program. These aides are involved in education, health, welfare; there are jobs for aides to the police, particularly in the community relations area, park and recreation aides and probation aides.

There is, however, a lack in the fundamentals of designing these aide jobs and working with the professional groups involved and there is a lack of involvement of the public agencies at the State and local level.

There is not as much scrutiny and analysis of these programs as some of us would like.

What would your reaction be to an amendment to your program that would provide an additional purpose of funding which would be to develop a program to identify these new career jobs in the kind of public service categories I enumerated, health, education, welfare, police and the lot, with a component for the development of the training course not only for the subprofessionals but the orientation course for the professionals and finding some kind of funding for on-going scrutiny and examination of how these training programs work to develop the aides and also of the impact on improving quality of public service?

Mr. HOWE. First, I agree about the significance of this development we have had about nonprofessional kinds of activities in public service. We have addressed ourselves to this matter partly in the Educational Professions Act where we are suggesting that Federal funding be made available to train these aides. It seems to me there is nothing in the existing proposal before you for amendment of the Vocational Education Act which would prevent a project from being developed around the concept you suggest.

There is a portion of this act which lists a series of examples of the kinds of things that could be included. You are suggesting an amendment to address itself to this broad area of getting young people ready to assume positions as these aides.

Just talking off the cuff about it, I wouldn't see any difficulty in including this as an example in that list of suggestions. I wouldn't want to include the requirement that every project have this category in it because that would be restrictive; however, in terms of calling attention to this very important possibility, there are really two ways to do it: One is for us to do it administratively and the other is to include it in this legislation as the kind of purpose for which the legislation is reaching.

Mr. SCHEUER. That is what I have in mind.

Mr. VENN. May I comment?

Mr. SCHEUER. Yes.

Mr. VENN. As I see it, you are talking of a career development concept and I think basically this whole amendment has as its concept starting at the junior high school level with these youngsters and developing all career possibilities.

I think the goal of every school should be to develop all career possibilities in all students. True, it will require changes in the system. There must no longer be simply the traditional college preparatory, general, and vocational course offerings as such. Vocational students must no longer be looked upon as the "have nots" because graduation means a job instead of college. These students must have access to some of the academic courses in order to explore and develop their own potential. For those students whose families say "no, we could never reach the professional level," new programs such as we have been discussing today could offer them the opportunity to qualify for subprofessional or preprofessional training and success in these programs could create a thirst for more knowledge and more training.

I think the career development concept could indeed work very well and be another way of building bridges into many of these programs.

Mr. SCHEUER. That is exactly the philosophy I am suggesting. I am also suggesting another advantage to this program, the obvious, clear and rather pressing need for these people. The President's Manpower Committee submitted last year there is a need for about 5,200,000 jobs in public service.

There are now jobs at State, county, and municipal levels already funded for which personnel is not available. We would avoid the depressing and disillusioning phenomenon we have had at the job level program of training people and equipping them with skills for jobs that don't exist now but which may have existed at the time the program was designed.

By the time they enter and get out the other end of the pipeline, the bottom portion of the pyramid has been eaten away and removed those lowest jobs of sophistication for which we are training people in other programs.

We need a lot of kids in health services, nutrition, and the like. The demand for public service personnel, both professional and nonprofessional is escalating every year. A very important fact is these kids would know that if they made the grade, showed the drive and motivation, a job would be waiting for them at the end of the line without question.

This is a very important element to me and, as you suggest, to try to get on that ladder and take the first few steps up.

Mr. HOWE. Let me make an observation on that ladder: there are a couple of rungs on that ladder that are a long distance apart, that is the jump from being in the aide category to the professional category. Many professionals are beginning to accept aides more willingly than they did sometime before, such as teaching and social work professions, and a variety of other—the nursing professions, and so on.

Very few professions really have addressed themselves to the ways by which people who achieve real success as aides can find a more flexible route into the profession than going back and starting all over again. There is very little effort to build on what is learned through experience as an aide as an additive in making the move to the profession an easier move.

Mr. SCHEUER. I couldn't agree with you more and it would be to enhance the study of new designs, to fill in the gaps where there is a large space, that perhaps we need a new rung and I believe we have to do this job of designing new career jobs to make the transition possible and I believe it is essential to involve the professional societies—the nurses, doctors, teachers—involve those professional groups to design these jobs so that they are involved and they will really feel that the creation of an aide job is an enhancement of the profession and increases the capability and avoids the waste of professional talents on functions others would be trained to perform.

Mr. HOWE. I think we should excerpt this from the record and send it to professional societies.

Mr. PUCINSKI. Mr. Steiger.

Mr. STEIGER. I agree with Mr. Meeds, I think it would be well to have you back to talk about other ideas before the committee. I for one am deeply disappointed that you are not at this point prepared, and I hope you will be soon, to come back and talk about these points.

I agree, also, with Mr. Scheuer and share his concern for the development of better programs for nonprofessionals.

May I inquire, just to clarify the record, when the University of Wisconsin study on "Evaluating the Technological Studies," will be available in about 8 months? Do you know the exact date on that?

Mr. VENN. I have been advised that the initial data will be available by June. The final analysis will be completed about October of this year.

Mr. STEIGER. 1967?

Mr. VENN. That is correct.

Mr. STEIGER. Thank you for clarifying that.

I will admit as a result of what was said earlier, I am not sure I understand your position, Commissioner Howe. On the one hand you are saying the needs are well founded for the amendments that are proposed in title II, section 201, to broaden the innovative programs in vocational, technical, and adult education and yet you are not willing to make that same assessment about the bill that Mr. Pucinski, for example, has put before the committee in other areas of the Vocational Act of 1963.

I would like to know how you correlate this apparently contradictory statement about the knowledge of need on the one hand and the lack of knowledge of needs on the other hand where you say you want to wait for a report to come up?

Mr. HOWE. I just think it has been evident for some time that we need added energies to move in the direction of translating research findings into demonstration projects, that is essentially what this proposal is about, to bring into being demonstration projects which will offer the category of youngsters, not now embraced in vocational education activities, the opportunity to get involved in those.

I can't conceive that studies identify what has been general conversation among responsible educators for sometime. I think we are responding to a very evident need here.

The scope, on the other hand, of the Federal involvement in vocational education in the broadest sense, what the needs are for additional personnel, an item suggested in Mr. Pucinski's bill, the needs for overall funding of vocational education, it seems to me both of them are more complex matters which probably will benefit this examination of the studies, so I have not felt we were in a contradictory position.

Mr. STEIGER. One of you made the statement in answer to a question by Mr. Meeds that what was proposed in section 201 was not a departure—if I remember the correct language—not a departure from what we are now doing in vocational educational program.

I have been looking, and perhaps you can clarify this, and find it would be a departure because of the authority given the Commissioner to provide grants without State approval?

Mr. HOWE. I don't remember the exact statements; maybe Mr. Venn made it or maybe I did.

We are not suggesting launching programs in States without State involvement. We are suggesting that the State involvement should be through a consultative arrangement to help us sort out those projects comprehensive enough to qualify as demonstration projects in that State. The arrangement Mr. Venn described involved sending to the State a series of projects that had been approved with the involvement of representatives of the State and then having the State decide which ones it would accept.

If I picked your process correctly out of your testimony, it seems we have involved the State right along the line.

Mr. VENN. Yes, sir.

Mr. STEIGER. You indicated you would rather have flexibility, as you used the word, on this question of whether or not you would object to an amendment so that it would read something along the lines that the Commissioner in making grants to or with local agencies, or with the State boards—is that a correct interpretation of your answer—that you would not be for an amendment of that kind?

Mr. VENN. My position is that we would not want the amendment changed. One of the problems would be that a State having a small amount of money to cover a broad problem would have to choose among 40 or 50 proposals when only five or six could be funded. The State education department must work with the local school districts day by day, and to turn some down, and not others, would be very difficult.

Mr. STEIGER. Wait just a minute, the Commissioner just got through saying under the administrative procedure you would work out, under the way you have it now, you would be getting a program, you would approve it, and take it back to the State department. How does that shift the responsibility and put them in a different position than if they have the original approval.

Mr. VENN. The difference is that the Commissioner would make the selection based on the advice of a committee which would include a member of the State department of education. The States would be involved and have the privilege of not concurring with the selections if they feel there has been an error in judgment. The proposed approval procedure has this built-in protection for the States.

This amendment would provide only a small amount of money to each State and, considering the need of all school districts and the pressures exerted by them, I think the tendency would be for a State to give something to all rather than funding one or two demonstration projects which would focus on specific problems and result in programs and findings beneficial to all schools.

Again I would point out that these projects would be approved for a definite period of time and would focus on the very serious problems the States say exist—problems that have not been reached by the Vocational Education Act of 1963.

Mr. STEIGER. I would only comment on your arguments that I think you should rethink them. I also think they are not persuasive under the proposal as you have made it.

Can you give me any indication, you did for New York and California, as to what the eligibility for Wisconsin would be?

Mr. HOWE. $615,000.

Mr. STEIGER. Would it be possible, Mr. Chairman, for the record to include the chart that Mr. Howe refers to as part of the record at this point?

Mr. PUCINSKI. Yes; Mr. Howe, will you make that available for the committee? It is so ordered.

(Information will follow:)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, OFFICE OF EDUCATION

Estimated distribution of funds under proposed amendment to the Vocational Education Act of 1963 for exemplary and innovative programs or projects in vocational education, fiscal year 1968

Total	$30,000,000	New Hampshire	$224,434
Alabama	592,751	New Jersey	854,552
Alaska	182,083	New Mexico	280,900
Arizona	333,517	New York	1,982,606
Arkansas	388,701	North Carolina	778,835
California	2,128,907	North Dakota	230,850
Colorado	372,017	Ohio	1,298,587
Connecticut	443,884	Oklahoma	431,051
Delaware	203,900	Oregon	373,301
Florida	749,319	Pennsylvania	1,401,254
Georgia	694,135	Rhode Island	244,967
Hawaii	239,834	South Carolina	495,218
Idaho	237,267	South Dakota	232,134
Illinois	1,258,803	Tennessee	610,718
Indiana	701,835	Texas	1,379,438
Iowa	464,418	Utah	271,917
Kansas	401,534	Vermont	197,483
Kentucky	543,985	Virginia	677,452
Louisiana	585,051	Washington	502,918
Maine	265,500	West Virginia	388,701
Maryland	550,401	Wisconsin	614,568
Massachusetts	713,385	Wyoming	189,783
Michigan	1,093,253	District of Columbia	218,017
Minnesota	554,251	American Samoa	600,000
Mississippi	455,434	Guam	
Missouri	627,401	Puerto Rico	
Montana	234,700	Virgin Islands	
Nebraska	311,700	Trust Territory of the Pacific	
Nevada	192,350		

NOTE.—Distribution of $30,000,000, with 2 percent reserved for outlying areas and the balance distributed with a basic amount ($150,000) to each State and District of Columbia and the remainder distributed on the basis of 15 to 19 population, July 1, 1965.

Mr. PUCINSKI. Mr. O'Hara?

Mr. O'HARA. Due to the lateness of the hour and I was not here for the testimony, I will not take up much of the committee's time. I gather from what I have heard it would be necessary to ask these gentlemen to return to discuss aspects of the Pucinski bill, so I will reserve my questions to that time.

In the meantime I will yield to Mr. Brademas.

Mr. **Brademas.** I am sorry I had to be in and out but one question I wanted to raise which others may have raised. Will you tell us the status of the vocational, the residential vocational school program in the area vocational program today?

Mr. **Howe.** The schools were included in the 1963 act. We brought to the Congress, I believe, in 3 successive years a request for an initial appropriation to fund that portion of the act. The Congress in each case, through its appropriation action, took those funds out of our request. We have become discouraged so that we are not bringing a request for funding of that particular portion of the act in fiscal 1968.

Mr. **Brademas.** Thank you. I would only express, as I think most of this committee would, after being strong supporters of that program, my dismay and distress that we have not been able to move ahead to get money for the program.

If I understood the chairman in his colloquy with Mr. Quie at the outset of the hearing, he, too, is a strong champion of these programs and we have the authority but not the money; is that what we are saying?

Mr. **Howe.** That is correct, we have asked for funding for 3 successive years and was denied it in each case.

Mr. **Pucinski.** This morning, your testimony was directed to the amendments included in title II of ESEA. I believe that testimony on H.R. 7380 to a great extent is already in the record.

Last year the pertinent committee held extensive hearings on parts of 7380 and the subcommittee reported the bill out. Then we ran out of time. So that it appears to me that you were wise today in placing your emphasis on the new aspects of this proposal which are included in title II. I would like, though, just to bring our record up to date, to recall you and the Commissioner where we stand. If for some reason you personally, Commissioner, can't make it, then I hope Mr. Venn and his associates will appear. But I hope you will be able to get back because we will want to bring ourselves up to date on the various proposals of 7380.

I myself am not satisfied that the title V of the Education Profession Development Act necessarily would do what we intend to do in the fellowship and exchange program in 7380, nor am I satisfied that the work-study programs are sufficiently covered in other legislation. So obviously, as far as I am concerned, the amendments of title II do not go far enough when your own testimony this morning pinpoints the extent of the problem among the young people of this country who are not fortunate enough to go on to college—only 2 out of 10 youngsters go on to college in this country.

Unfortunately, the Bureau of the Budget and a lot of other people around here are college oriented. I think the time is long past due when we must start recognizing the responsibility and the needs of these youngsters who are not fortunate enough to go on to college. So we will be recalling you because we do want to look at some of the provisions of 7380 and we do want to see how this committee can assist in stimulating a greater interest on the part of other committees of Congress, including appropriation committees and Bureau of the Budget, and perhaps some people in the administration, on how we can move along this "residential skill center" concept that this committee reported out and which was enacted into law as far back as 1963. I agree with the gentleman from Indiana, Mr. Brademas, that it is indeed incredible that so little work has been done in this particular area.

Now, I am not blaming you entirely for this. You can't do it if you don't have enough funds, but it seems to me we ought to take a hard look at this vocational education program. It is my judgment that we have here an opportunity to do something extremely significant for a vast segment of our young American population that for various reasons is now among the ranks of the unemployed.

We will be calling you back and we do want you to be taking a hard look at this, to update your testimony from last year on the major provisions of 7380 and see whether we can't dovetail the two proposals together and come out with a bill that is going to do the job. Certainly I want to congratulate you for coming down personally. As I said at the outset of the hearings, your presence here indicates your deep interest in the school problem. I want to compliment you.

Mr. Quie. I have two questions I would like to ask before we break up.

Since the Commissioner is coming back, we will talk of the other bill then.

What percent of the money, $30 million, could you use for public and private agencies other than the school agencies presently in a vocational educational program?

Mr. Venn. There is no percentage indicated in the $30 million. It would depend on the projects coming in from each State.

Mr. Quie. It could be from a hundred percent on down?

Mr. Howe. I think a hundred percent is highly unlikely. The high proportion of projects submitted from States are in all likelihood going to be submitted by the State board of education itself or a local education agency rather than having a preponderance of projects from other sources.

Mr. Quie. The other sources could submit projects of their own?

Mr. Howe. Yes, sir.

Mr. Quie. Could you contract with private profitmaking agencies for an entire vocational operation program?

Mr. Howe. If a proposal from a State had this characteristic, I guess within the limits of what is suggested in this legislation that is possible. Again it seems to me an unlikely expenditure for a total State allocation but it is certainly a possibility.

Mr. Quie. Thank you.

Mr. Meeds. I just have one question. Assume that local education, or State education came in behind a program geared to the proposed amendments you are supporting today, combined with other elements of the Vocational Education Act of 1963, is there any problem in funding this type of a program? In other words, you are not excluding combinations of programs by directing your attention to this specific problem?

Mr. Howe. No, sir; and we would welcome a combination of programs and, indeed, programs that a local legislation agency might mount under title I of the Elementary and Secondary Education Act augmented by resources of this program and directed in the particular directions suggested here.

Mr. MEEDS. Thank you.

Mr. PUCINSKI. There being no other comments, the committee is going to resume its deliberations, assuming that we get permission to sit—I hope there will be no objection—at 2 o'clock this afternoon.

I want to thank you for being with us. You certainly have a good understanding of the problem and we will call you back after we have further testimony here to tie together the loose ends of the totality of this legislation.

Mr. HOWE. Thank you very much.

Mr. PUCINSKI. The meeting will stand adjourned until 2 o'clock.

(Whereupon, at 12:05 p.m., the committee adjourned, to reconvene at 2 p.m., the same day.)

AFTERNOON SESSION

(The subcommittee reconvened at 2 p.m., Hon. Roman C. Pucinski presiding.)

Mr. PUCINSKI. The committee will come to order.

Let us proceed with your panel, Mr. Bushnell.

PANEL: DAVID BUSHNELL, DIRECTOR, DIVISION OF ADULT AND VOCATIONAL RESEARCH, BUREAU OF RESEARCH, OFFICE OF EDUCATION; DR. ROBERT WORTHINGTON, ASSISTANT COMMISSIONER FOR VOCATIONAL EDUCATION, STATE DEPARTMENT OF EDUCATION, TRENTON, N.J.; DR. LAWRENCE WILSEY, SENIOR VICE PRESIDENT, BOOZ, ALLEN & HAMILTON, CONSULTANTS, CHICAGO, ILL.; DR. FRED COOK, CHAIRMAN, DEPARTMENT OF BUSINESS AND DISTRIBUTIVE EDUCATION, WAYNE STATE UNIVERSITY, DETROIT, MICH.; DR. LAWRENCE C. HOWARD, DIRECTOR, INSTITUTE OF HUMAN RELATIONS, UNIVERSITY OF WISCONSIN, MILWAUKEE, WIS.; DR. HOWARD A. MATTHEWS, DIRECTOR, DIVISION OF MANPOWER DEVELOPMENT AND TRAINING, OFFICE OF EDUCATION

Mr. BUSHNELL. Thank you, Mr. Chairman.

We are here today to comment on part B proposed amendments to section 4(c) of the Vocational Education Act of 1963. I have invited four gentlemen to join with me in assisting in this commentary. I would like to introduce them now and go on with my testimony, if I may.

On my far left is Dr. Robert Worthington, assistant commissioner for vocational education, State Department of Education, Trenton, N.J.

Dr. Worthington has been the recipient of a number of research grants under 4(c).

Next to Dr. Worthington is Dr. Wilsey, senior vice president, Booz, Allen & Hamilton, consultants, Chicago, Ill. They are subcontractors for the Indianapolis Hospital Association grant under 4(c).

On my immediate right, Prof. Fred Cook, Department of Business and Distributive Education, Wayne State University. Dr. Cook also has been carrying out, at Wayne State, some rather interesting research which he will report on today.

Dr. Lawrence Howard, who has not yet joined us, is the director of human relations at the University of Wisconsin, and I am sure his comments will be of interest to you.

Recent changes in the American economy brought on by the new technology, a mobile population, and increased urbanization require a very different approach to education and training from that which was adequate before the Second World War.

These changes are taking place so rapidly that our schools must educate young people with only the vaguest of ideas about the nature of the work those students will face a decade from now. Yet, the education given to our young people must serve them for five or six decades in the future.

This problem cannot be solved solely by providing more and better higher education. That is not realistic. Only 20 percent at the fifth grade level can be expected to graduate from college.

Mr. **Pucinski**. That is a very significant figure.

Mr. **Bushnell**. The remaining 80 percent will face a complex, technical society without a college degree. Unless there is a vast improvement in the education and training now made available, less than one-fourth of them will enter the work force with the ability to get and hold a job. This means vocational education faces a massive challenge.

In 1965 there were 2.8 million secondary public school students enrolled in vocational programs. They accounted for 22.5 percent of secondary school student population. By 1966, 3.2 million, or 27 percent of the total number of secondary school students were participating in vocational programs. If the percentage increases to 50 percent in 1970, we can expect 6.7 million young people to be affected by vocational education offerings.

More trained technologists are needed to plan and manage production, to maintain automated apparatus, to sell and service the product, and to conduct research for newer and better products. A growing modern economy also requires more and more teachers, scientists, and professional managers, advertising and sales people, computer programers and technicians, and mechanics and maintenance workers of all kinds.

Young jobseekers, faced with a continuing shift from production-oriented occupations to service occupations, require a broad base of adaptive, communicative, and social skills. Many of the former types of entry-level occupations are now unavailable to youngsters entering the labor market. Further, while qualifying for an entry-level occupation is a necessity, a person's first job can no longer be viewed as a final career commitment but should be looked upon as the first in a series of job changes leading, hopefully, to a stable and satisfying career.

The past practice of placing students in either a general curriculum or in a vocational education program is now working to the detriment of students in both groups. Academically oriented students are directed and trained to pass the college entrance exams. They have little opportunity to acquire a knowledge of the occupational world in which they will live and earn a living as adults. At the same time, vocational students receive too little opportunity to develop competence in the basic educational skills which they must have if they are to cope adequately with present-day society.

Many who plan to go on to college will never make it, or, if they do, will drop out before graduation. Those exposed to current vocational programs frequently find themselves being trained for a narrow range of job skills. Even if they should qualify for their first job, they are still faced with the need to adapt to a changing labor market.

A third and large segment of our public school population is not enrolled in either vocational preparatory or college-oriented programs. These "general education" students often receive a diluted program which in too many cases provides little academic or occupational preparation that is useful to them in the adult world.

Steps must be taken right now to make sure that in 5 years or so our occupation oriented education programs are preparing young people for the fact that the peak wage-earning period in their lives will be at the beginning of the 21st century.

> They must be given the information necessary to permit them to make wise career decisions.
>
> Our education and training programs must be designed to increase flexibility and opportunities rather than to channel students down narrow paths to dead ends.
>
> College preparatory and vocational courses must be pulled together into comprehensive programs designed to provide all students with an opportunity to get a well-rounded education which meets his individual desires and needs.
>
> Vocational education curriculums must be adapted to meet the needs and abilities of the students as well as the needs of the marketplace.
>
> Educators and employers must work together to provide the necessary knowledge, skills, and attitudes which will qualify today's students for their life roles as adults and citizens employed in the 21st century.

Our education programs should permit maximum flexibility to meet the needs of each individual. If a youngster leaves school before graduation, he should leave with functional skills so he can get a job. The student who graduates from the program should possess the necessary qualifications for maximum flexibility in his post-high-school activities.

He might enter a university or a community college or a technical school and receive post-high-school occupational training. He should also have entry-level occupational skills which permit him to go to work. He should have the additional option of continuing his education in an adult education program, if he chooses. The key point is that he should be able to decide which option to choose after high school graduation, not 3 or 4 years before.

The Division of Adult and Vocational Research (DAVR), authorized under section 4(c) of the Vocational Education Act of 1963 has organized a program to finance research and demonstration projects which point in this direction. The emphasis has been on improving curriculums, sponsoring inservice training programs for vocational education personnel, establishing research coordination units and development centers in 44 States, dissemination of information, identification of and training for developing occupations and new careers, and the evaluation of present vocational education programs.

For a comprehensive statement of our program goals and objectives for this and the next fiscal year, Mr. Chairman, I would like to insert for the record a copy of our recently published program objectives, as stated in the "Vocational, Technical, and Adult Education Research Programs."

Mr. PUCINSKI. Without objection, that will be placed in the record.

(The information follows:)

VOCATIONAL, TECHNICAL, AND ADULT EDUCATION RESEARCH PROGRAMS FOR 1967-68

Division of Adult and Vocational Research, Bureau of Research, Office of Education, U.S. Department of Health, Education, and Welfare

INTRODUCTION

The demand for education has been expanding rapidly in our dynamic economy. Total education expenditures have risen from $20.5 billion in 1955 to about $45 billion in 1965 and they are expected to rise to over $65 billion by 1975. The demand for higher education alone has increased disproportionately to the number of opportunities available. Whereas high school graduation was the standard of attainment for earlier generations, a college degree has now become the common goal for many students.

But for some, college need not and should not be a desired objective. Economic, intellectual, or other interests frequently militate against such an aspiration; many adults can find rewarding and fulfilling careers with less than a bachelor's degree. How to adapt the available resources to the needs of non-college-bound students is the legitimate concern of vocational education research. Optimizing the opportunity for individual achievement in a modern free enterprise economy requires new curriculums, instructional methods, and motivational techniques. This is the purpose of the research and development efforts authorized by the Vocational Education Act of 1963. The basic objective of the Division of Adult and Vocational Research (DAVR) is to help nonprofessional persons of all ability levels and backgrounds, in school and out, to acquire the basic knowledge, occupational skills, and personal characteristics that will enable them to lead fully satisfying lives as economically self-sufficient individuals.

Recent shifts in the structure of the labor market have imposed increased demands upon public education to prepare young adults and experienced workers alike for changing work careers. The shift from production-oriented occupations to service occupations has accelerated the need for communicative and social skills in addition to the more familiar manipulative skills. Unfortunately, much of what is now taught in our schools fails to recognize this shift.

Through research and the support of innovative programs, a number of promising techniques and instructional materials have recently been identified, but much remains to be done. The magnitude of the job facing vocational educators can best be comprehended by examining the numbers of potential students for whom these programs are designed. Only 20 percent of our high school student population will complete a 4-year college program during their formal years of education. The remaining 80 percent are potential recipients of vocational education. In addition, about 18 million adults are enrolled in vocationally oriented programs in continuing education courses.

The dollar cost of not properly educating this major segment of our employed population can be measured in part by the outlay of funds for remedial programs sponsored by the Welfare Administration, the Office of Economic Opportunity, and the Office of Manpower Evaluation and Research. Because a healthy economy depends largely upon its ability to adapt to changes in its productive capacity and consumer markets, those currently employed or about to be employed need the same attention and educational services as those unemployed or out of school.

PURPOSE

Under the provisions of Public Law 88-210, the Office of Education has been charged with the responsibility of assisting the States to maintain, extend, and improve programs in vocational education and to develop new programs for people who need to acquire or upgrade their occupational skills. This Act authorizes Federal support for research, training programs, and demonstration or pilot programs to support the improvement and expansion of occupational education. The law places particular emphasis on vocational research and development related to the vocational education of young people from economically depressed communities who have academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational programs. Funds for adult and continuing education research also come from the Elementary and Secondary Education Act and related legislation.

To carry out the Division's research and development program, the DAVR has been organized into three branches:

The Employment Opportunities Branch concentrates on those Division programs which relate to economic and occupational information needed to plan, administer, and evaluate programs of adult and vocational education; to facilitate students' career choices; and to ease transitions from school to work and from job to job.

The Human Resources Branch focuses on the person preparing for or involved in the world of work—his career development, the relationship between a student's background, his family, his abilities and aptitudes, his motivations and aspirations, and his performance in school and on the job.

The Educational Resources Development Branch seeks to improve existing vocational programs and develop new programs and train the personnel to run them. This Branch promotes research, experimental, developmental, and pilot programs and evaluates their success in the field of curriculum development, instructional media and methods, organization, administration, teacher education, and facilities.

Two general classifications of research investments characterize the major thrust of this fiscal year's program. Institutional support activities provide assistance to universities or other groups with major research and development programs and permanent staffs. Individual project support comprises the second classification of research investment.

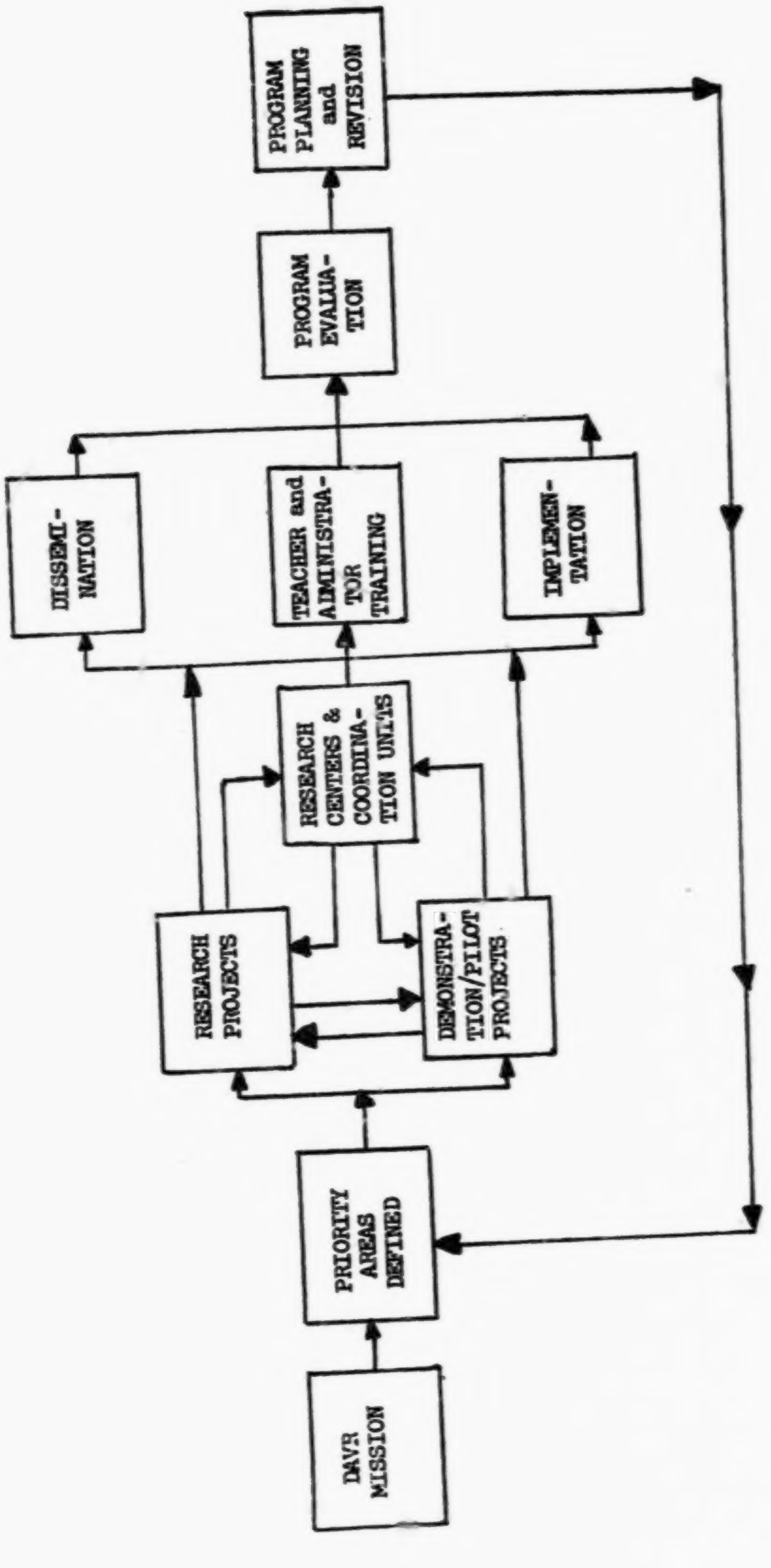
DAVR MISSION
PRIORITY AREAS DEFINED
RESEARCH PROJECTS
DEMONSTRATION/PILOT PROJECTS
RESEARCH CENTERS & COORDINATION UNITS
DISSEMINATION
TEACHER and ADMINISTRATOR TRAINING
IMPLEMENTATION
PROGRAM EVALUATION
PROGRAM PLANNING and REVISION

Figure 1. Functional flow chart of DAVR's principal activities.

Figure 1 shows the flow of DAVR's functions from its legislatively defined "mission" stage, through program definition, development, implementation, dissemination, and finally program evaluation and revision.

INSTITUTIONAL SUPPORT ACTIVITIES

The institutional support activities of DAVR have focused primarily upon three program areas:

Research Coordinating Units
Teacher-Administrator Inservice Training Institutes
Vocational Research Centers

Research Coordinating Units

The locus of vocational training is at the secondary or community college level, and research resources in these kinds of institutions have been very limited. For this reason, DAVR has established Research Coordinating Units (RCU) in 44 States, in cooperation with the State departments of education. These Units are administratively located in universities and State departments of education and are required to assemble an interdisciplinary staff.

The general purpose of the RCU's is to stimulate, encourage, and coordinate research activities among State departments of education, universities, local school districts, and others with an interest in vocational and technical education. Although specific research activities vary with the research environment in each State, the following are indicative of the types of activities undertaken in most States:

Establishment of a State Research Advisory Committee composed of representatives from colleges and universities, vocational schools, State department of education, local school districts, State employment service, business, industry, and labor.

Inventory of research resources within the State, including the identification of individuals and organizations actually or potentially involved in vocational research.

Review of State vocational programs and identification of outstanding problems amenable to research.

Formulation of overall State research philosophy, establishment of research priorities, assignment of roles, and coordination of efforts.

Dissemination of research information and findings through conferences, newsletters, and other media.

Review of research proposals and provision of technical consultant services to local school district researchers and others.

The Research Coordinating Units marshall and develop the research resources in each State for the improvement of vocational education. Each unit is to be supported by the Office of Education for 3 years, with a gradual phase-out of Federal support in anticipation of full State and/or institutional support thereafter.

Teacher-Administrator Inservice Training Institutes

Insuring that the information gathered in the research and demonstration efforts is disseminated and implemented in the workshops and classrooms of the Nation's schools is another responsibility of DAVR. An important activity sponsored by the Division has been the support of vocational personnel training institutes around the country. These are programs designed to inform vocational teachers and administrators about the results of research efforts that are relevant to their problems. The subjects of the institutes may range from information about new occupational areas for which new curriculums and materials have been developed to innovational, educational technology which is applicable to vocational education. Teacher-administrator training institutes have contributed directly to the implementation of research findings at the local school level with minimum delay.

Vocational Research Centers

In order to insure that certain important research questions will be answered, two vocational research centers have been established. One of these is at North Carolina State University at Raleigh and the other is at Ohio State University, Columbus.

In the planning and operation of the Centers, provision is made for serving not only the broad comprehensive needs of the total vocational and technical education program but also the unique needs of specific and related vocational services.

The objectives of the Centers include stimulating and strengthening State, regional, and national programs of applied research and development directed toward the solution of pressing problems in vocational and technical education; encouraging the development of research to improve vocational and technical education in institutions of higher education and other appropriate settings; conducting research studies directed toward the development of new knowledge and new applications of existing knowledge in vocational and technical education; and upgrading vocational education leadership (State supervisors, teacher educators, research specialists, and others) through advanced study and inservice education programs.

The "center" concept provides a means to catalyze and energize the essential resources needed to effect major improvement in vocational and technical education. In addition to its research contributions, the Ohio State University Center also provides a national information retrieval and dissemination system, contributing to the rapid and effective utilization of research results and tested innovations.

INDIVIDUAL PROJECT SUPPORT ACTIVITIES

The largest share of DAVR's efforts has been the sponsorship of individual research projects. All of the projects are planned to improve vocational education, and they vary widely in the particular problems to which they are directed. (Lists of past and current projects are available from DAVR.) In order to insure the relevance of the individual projects to current and pressing needs in vocational education, DAVR and its Advisory Council have defined specific priority areas for fiscal year 1967–68. These five priority areas are:

Program Evaluation
Vocational Education Curriculums
Vocational Education Resources Development
Vocational Guidance and Career Choice Processes
Adult and Continuing Education

Most of the current individual projects supported by DAVR fall into one or more of these priority areas, which are discussed in detail below.

Program Evaluation

An important responsibility shared by DAVR with other Government agencies is the evaluation of vocational education's effectiveness in meeting the needs of the Nation's young people. A well and appropriately trained manpower is society's greatest resource. To insure that this resource is optimally developed requires continuing evaluation and information feedback to educational decision-makers. Particular emphasis will be placed on individual projects designed to provide this kind of information. In addition to these broad requirements, attention will be given to projects which may be described as follows:

> Where valid evaluation procedures and techniques have not yet been developed, or where there is reason to believe that better or cheaper evaluation methods are needed and feasible, DAVR will finance research projects designed to develop new and innovative approaches.
>
> Where new promising teacher training, curriculum, administrative, or other innovative programs have been developed, DAVR will finance projects for their assessment. Projects for the purpose of evaluating the effectiveness and potential for replication elsewhere of successful innovative programs will also be supported.
>
> DAVR will support projects designed to evaluate the dissemination procedures by which new and innovative approaches to vocational education are transformed into educational practice.
>
> DAVR's entire research and development program will be evaluated on a continuing basis to provide the information necessary for helping to set priorities for each coming year's activities. This evaluation procedure is necessary in order to measure performance against the goals set and to bolster the weaker aspects of the program as well as to determine when an element in the plan has been accomplished which can free resources for a new priority.

Vocational Education Curriculums

The need for substantial changes in occupational training in the public schools is evident. Vocational education curriculums are needed which will (1) provide occupational skill training for nearly 8 times the number of students who now receive it, and (2) insure that the training is adaptive, up to date, and relates to existing and future job requirements. A conclusion supported by several comprehensive studies indicates that these aims are not being completely met with vocational curriculums in the Nation's schools today.

The first step in building new vocational curriculums is to look at those behavioral requirements needed for entry into a variety of activities after one leaves school. These behavioral requirements should be stated specifically and in measurable terms. Following the lead of the systems analyst, one should describe as precisely as possible the specifications of the desired end product. What are the ingredients of a high school program which will assure the attainment of these specifications? New vocational curriculums will likely include academic as well as occupational training but may also include such components as personal development, real work experience, and post-high school placement functions. Even the avocational or school-sponsored recreation or social programs may be considered an integral component of this system. Each of these components and subparts must be defined in terms of its contribution to the attainment of the specified behavorial objective. This process permits empirical validation of the teaching effectiveness of the program

Curriculums must be developed so that each component activity relates logically to all other activities and leads to the efficient attainment of the behavioral objectives. The characteristics of this system should include the following:

It will permit maximum flexibility of post-high school activity options.

Each student should receive broad educational training in any single track within the system.

It will utilize appropriate self-paced and self-instructional technology and maximally accommodate individual differences in learning rates.

It will allow each student to succeed in his learning experience.

It will be interesting, challenging, and intrinsically motivating to each student.

It should be capable of being implemented or adapted to many different school systems.

It will lead efficiently and effectively to the attainment of specific behavioral objectives.

It should be, in the implementation stages, cost effective.

While content and structure are difficult to state meaningfully without a great deal more specificity, the following is an attempt to state several objectives of such curriculums. New curriculums should:

Emphasize the articulation between academic and vocational learning for the purpose of fusing the two programs. By employing vocational preparation as the principal vehicle, the inculcation of basic learning skills could be made more palatable to many students who otherwise have difficulty seeing the value of a general education.

Expose the student to an understanding of the "real world" through a series of experiences which capitalize on the universal desire of youth to investigate for himself. Abstract, verbal principles would be acquired through nonverbal stimuli, such as seeing, feeling, manipulating, and even smelling.

Develop a core of generalizable skills related to a cluster of occupations rather than just those related to one specialized occupation.

Orient students to the attitudes and habits which are associated with successful job performance.

Provide a background for the prospective worker by helping him to understand how he fits within the economic and civic institutions of our country.

Make students aware that learning is life-oriented and need not, indeed must not, stop with his exit from formal education.

Help students cope with a changing labor market through developing their problem-solving ability and career strategies which can lead to an adequate level of income and responsibility.

Create within the student a sense of self-reliance and awareness which leads him to seek out appropriate careers with realistic aspiration levels.

The following are representative of the kinds of curriculum research and development efforts which will be supported by DAVR:

A design for teaching generalizable occupational concepts rather than narrow vocational skills subject to obsolesence.

A study of the relationship of flexible scheduling, self-instructional methods, and new educational technology as applied to occupational training.

The development and cataloging of measurable behavioral objectives for occupational training.

The design and validation of assessment instruments for measuring attainment of behavioral objectives.

The development and testing of packages of curriculum materials, for both teachers and high school and post-high school students, for clusters of occupations for which limited training opportunities have been available. Clusters of occupations for which curriculum development and training are needed are:

Occupations related to recreation
Health occupations
Services-to-people occupations—welfare, household employment, services and care of elderly
Occupations in the communications field
Transportation and related occupations
Office occupations related to changing technology
Teaching assistants
Public service occupations
Mid-management and occupations related to distribution and marketing.
Skilled tradesmen and craftsmen, service specialists

The development and testing of curriculum materials for teachers and students for offering prevocational orientation to the world of work experiences for all junior high school students, recognizing differences in life patterns of boys and girls.

The development of curriculum materials and experimentation with new approaches and media for: (a) bringing about desired changes in youth of personal qualities needed for effective adjustment to the world of work, (b) preparing girls for their dual role of home manager and wage earner with accompanying education for boys relative to the changing roles of men and women in today's society, particularly those from disadvantaged backgrounds.

A study of the contribution which participation in youth organizations related to vocational programs may make to personal development and leadership competence of all students, particularly those who are disadvantaged.

The design of instructional elements and components of a systems curriculum, integrating general and vocational education.

The measurement of the effect of work-study experience and placement on the learning process and motivation of vocational students.

Vocational Education Resources Development

Accelerated technological change, a rapid expansion of the service industries, and an expanded vocational education program at the secondary and post-secondary levels have increased the demand for vocational and technical teachers. New area vocational schools are being built; many high schools and community colleges are adding vocational and technical courses. In order to carry out the intent of Congress, that high quality and realistic vocational training or retraining should be made accessible to all desiring to take advantage of it, high priority must be given to recruiting and developing competent vocational personnel. Thus, one of DAVR's goals is to assist in developing (1) an adequate supply of personnel needed to staff new programs of vocational-technical education and (2) procedures to permit the upgrading of present personnel.

Studies are needed which relate to the determination of the numbers, qualifications, and sources of persons required to staff current and projected vocational programs. Moreover, research is needed to determine what vocational teachers should be taught and how teacher preparation programs should be organized at our Nation's colleges and universities.

The development of experimental programs for training new and current personnel is required. This should include the training not only of vocational teachers and counselors but school administrators and related vocational-technical-adult education personnel as well.

There is a need to investigate through research the possibility of using untapped resources for vocational instructors (e.g., retired military and industrial personnel) to find means of bringing them into the educational framework.

Research should also consider the feasibility of converting effective industrial technicians, managers, and other qualified persons into teachers to help reduce the existing and projected vocational teacher shortage and to help bridge the gap between the classroom and work.

In addition to developing vocational education resources, attention should be directed to the improvement of existing organizational structures of vocational education at State and local levels. Urgently needed is research relating to identification of factors which influence change such as State boards for vocational education; advisory groups; appropriate groups to formalize State plans, match funds, and establish other patterns of organization which facilitate the rapid adaptation of program activities. Successful local, State, and regional programs and their related organizational structures need to be identified and communicated elsewhere. Organizational and administrative patterns of vocational education programs already in existence need to be evaluated. Recent trends in general education such as ungraded schools, team teaching, flexible scheduling, and individualized instruction need to be adapted to the purposes of vocational education.

Vocational Guidance and Career Choice Processes

For the student, learning to make appropriate career decisions is an important part of his educational experience. From his work each individual derives not only his income but also many of his personal satisfactions and his status in the social groups with which he comes in contact. To help vocational guidance counselors prepare the individual for his role in society as an employed adult, and to help him grow both as a person and as a member of the society in which he lives, research must be undertaken to find out more about how concepts of work are formed, how individuals are motivated in work-related situations, and how individual satisfactions are achieved. Additional information is needed about the relationship of motivations, aspirations, and ability levels to one another and to external variables, such as job opportunities, occupational requirements, and training programs and their costs in time, effort, and financial expense. Emerging occupational fields should be identified and analyzed for content, employment requirements, and other important characteristics. The following research questions suggest the kind of information that is needed and can be achieved through a carefully planned long-range research program:

What specific behavior characterizes satisfactory career development?

What is the place of ocupational information and career decision-making in the curriculum?

Is vocational guidance a necessary or desirable isolated activity or should it be incorporated in other subject matter?

What values can and should be taught in school?

What are the respective roles of the counselor and the teacher in vocational guidance?

How can adequate, accurate, up-to-date, occupational information be procured and provided?

What are the occupational role models for children?

How do we resolve the problem of the future orientation of education and guidance versus the new orientation of the students?

What new educational techniques, procedures, and plans can be developed and employed effectively in the area of vocational guidance?

What can be done about the inadequate state of career development theory?

Can readiness levels for occupational information be established?

What are the career patterns of women?

What are possible sources of satisfaction in various jobs?

What is being done in the curriculum to teach occupational material and career decision-making?

Adult and Continuing Education

The periodic shifts characteristic of today's labor market, the necessity for frequent redeployment of portions of the labor force from old to new types of occupations, the large-scale efforts to improve the socioeconomic status of disadvantaged segments of the population, and the increased leisure time available to many have combined to create unprecedented demands for a variety of adult and continuing education programs.

Adult and continuing education programs are defined as educational activities outside the traditional and sequential educational system. The adult's overall purpose in engaging in these activities is to continue to grow as an individual and as a contributing member of society. His participation is usually voluntary and most of his activity is self-directed. He may seek learning solely for personal growth or as a means of entry and advancement in his work. In this latter case, his purpose would be to learn an employable skill or a useful art along with the related instruction which makes it meaningful, or he might be seeking to upgrade and improve his practice of such a skill or art and broaden his background of knowledge.

Although the demand for a wide variety of adult and continuing education programs is increasing, the systematic initiation and development of improved offerings is seriously hampered by the dearth of research in this field. The broad area of adult and continuing education is one which has been relatively unexplored in terms of research and development.

A well-conceived research and development program in adult and continuing education must aim at developing new knowledge concerning the process of educating adults and developing new applications of existing knowledge about this process. As a starting point, the content, quality, and extent of ongoing programs for adults in relation to the goals of education in our society must be assessed. Beyond this, specific attention should be directed to certain problem areas which might be grouped into three categories: (1) those dealing with the participants themselves, (2) those dealing with the process of educating adults, and (3) those dealing with the content of adult education.

SUBMISSION OF PROPOSALS

Proposals for adult and vocational education projects should be prepared and submitted in accordance with *Office of Education Support for Research and Related Activities.* Copies may be obtained upon request from the:

Bureau of Research
U.S. Office of Education
400 Maryland Avenue, SW.
Washington, D.C. 20202

Grants for the support of projects under $10,000 will be administered through the OE regional offices. Application and administration procedures have been developed, and are contained in the publication *Small Project Research,* available upon request from the regional offices.

ADDITIONAL INFORMATION

The following are available upon request from the Division of Adult and Vocational Research, U.S. Office of Education, 400 Maryland Avenue, SW., Washington, D.C. 20202.

Adult and Vocational Research, Training, and Experimental Programs
DAVR Research and Development Activities in New Occupational Fields
Guidelines for Research and Development in Adult and Continuing Education
Guidelines for Submitting Proposals To Conduct Training Programs for Vocational and Technical Education Personnel
Subprofessional Job Development in the Mental Health Field
Support for Research Programs in the Health Fields

Mr. BUSHNELL. Today, however, I would like to confine my remarks to describing two research priorities which have and will continue to occupy much of our time and effort during the coming year. These are the organic curriculum program and our new careers effort.

THE ORGANIC CURRICULUM

The first step in building a student-centered vocational curriculum is to study those behavioral attainments needed by the individual for entry into a variety of post-high-school activities. Whenever possible, these requirements should be stated specifically and in measurable behavioral terms. Following the lead of the systems analyst, we should describe specifically and precisely as possible the learning experience which would lead to the desired behavioral outcomes.

The ingredients of a high school program will assure the attainment of these specifications will certainly include academic as well as occupational training but will also include such components as personal development, real work experience, and personal vocational counseling. Even the avocational or school-sponsored recreation or social programs may be considered an integral components in this system. Each of these components and subparts must be defined in terms of its contribution to the attainment of the specified objectives.

The most important feature of such a curriculum is that it is learner oriented rather than process or subject-matter centered. The integration and interaction of the components will be a result of careful system design. There will be no discrete demarcation between academic and vocational skill training or between these and other parts of the system. The truly integral curriculum must be developed so that each activity relates logically to all other activities and leads to the efficient attainment of the behavioral goals.

A massive research effort is required to develop and validate this system. Such an effort is presently feasible and can produce significant improvements in the learning process. An "organic" curriculum, as envisioned, would necessarily have to be interesting, challenging, and motivating to each student. It would probably utilize appropriate self-paced and self-instructional technology and maximally accommodate individual differences in learning rate. It should be designed so each student will succeed and yet should be rigorous in level and content.

Furthermore, after thorough experimentation and revision the integral curriculum should be capable of implementation in or adaptable to many different comprehensive school systems in the Nation; and it should be cost effective in the implementation stages.

In general, the overall design of this curriculum should:

(1) Integrate academic and vocational learning by employing vocational preparation as the principal vehicle for the inculcation of basic learning skills. In this way learning could be made more palatable to many students who otherwise have difficulty seeing the value of a general education.

(2) Expose the student to an understanding of the "real world" through a series of experiences which capitalize on the universal desire of youth to investigate for himself.

(3) Train the student in a core of generalizable skills related to a cluster of occupations rather than just those related to one specialized occupation.

(4) Orient students to the attitudes and habits which go with successful job performance.

(5) Provide a background for the prospective worker by helping him to understand how he fits within the economic and civic institutions of our country.

(6) Make students aware that learning is life oriented and need not, indeed must not, stop with his exit from formal education.

(7) Help students cope with a changing labor market through developing career strategies which can lead to an adequate level of income and responsibility.

(8) Create within the student a sense of self-reliance and awareness which leads him to seek out appropriate careers with realistic aspiration levels.

There are many unanswered questions that must be researched before such a curriculum can become operational. The problems of logistics alone are large and complex. How do you control the flow of students through the program without inhibiting individualized learnings? Without the traditional "Carnegie units," how can school accreditation be achieved?

As the roles of teachers change, will the emerging roles be acceptable? Would this system work better in a 48-week time cycle than a 36-week cycle? How can the guidance activity contribute more effectively toward accomplishing the system objectives? How can present instructional media be most effectively used and what will be the nature of required new media? What are the problems involved in cataloging and programing the specific behavioral objectives of an entire curriculum, especially one as ambitious as this?

While most of the research and development efforts in curriculum have been small and fragmented to date—directed to the improvement of a particular subject matter area—more recent pilot efforts to redesign an entire curriculum are in evidence. A number have been focused on the problem of keeping young people in the system long enough for them to benefit from the experience. The most important feature that characterizes these efforts is the integration of two educational areas that have been traditionally quite separate—the academic and the vocational.

In Richmond, Calif., for example, a major effort was made to integrate the vocational and general educational curriculums. This was done by redesigning the content of traditionally taught subjects so that they related as much as possible to job training programs. Math was taught by means of job-related examples and problems. Communication skills were related to performance requirements on the job. Those who were at one time judged to be potential dropouts in the 10th grade became, by their senior year in high school, candidates for technical training at nearby junior colleges.

Another effort in relating the verbal-skill-oriented high school's general education program to the interests of many students was carried out by an MIT curriculum study group last summer. Working with a group of dropouts, they successfully managed to capture and hold the interest of youngsters who rejected the normal pattern of schooling.

It was necessary to develop a free interchange among the different academic subject matters, bringing together various pieces of learning into a cohesive whole, in which these areas are not fragmented but have an overall direction and purpose. By following this course of action, the possibility of early failure was minimized as youngsters moved from the relatively unstructured atmosphere of the elementary school into the more structured curriculum of the secondary school.

Job Corps centers have provided an excellent opportunity for designing learner-centered programs independent of many of the traditional constraints. In trying to define what the end product of such a program should be, the Job Corps educational planners determined that the economically self-sufficient, socially adaptive citizen needs many of the things offered by the traditional school system and much that is not. He not only needs basic educational skills but he needs to know about the workings of our society and his role in it; he needs to develop a realistic and favorable self-concept; he needs several career strategies to be able to operate effectively in our free enterprise system; and he needs the personal development that will permit him to make socially adaptive responses.

NEW CAREERS

Recent and continuing alteration in the nature and structure of the job market has increased the demands being made on vocational and technical education programs to prepare young adults and experienced workers alike for multiple and changing job content. DAVR has been sensitive to the increasing needs of employers for new types of social, personal, and manipulative skills, and the shortage of educated and trained workers in significant technical and human service fields to fill them. Its research program has given active support to projects which seek to identify and anticipate demands for new types of jobs and skills in emerging, new, or changing industrial and occupational fields.

Establishing new work roles related to professional service activities has proved to be much more difficult than anticipated. Legislators, administrators, civil service commissions, labor unions, and professional practitioners have been unable to translate a general endorsement of principle into actual subprofessional career opportunities.

Some jobs have been set up and labeled subprofessional, but few have incorporated advancement potential, sufficient pay, coordinated training, and other elements considered critical for a bona fide subprofessional job. Of these new employment openings, too many have been low-paying deadend jobs, with high rates of turnover and attrition that escalate training costs and provide too low a skill level to satisfy employers' staffing needs. Meanwhile, as program commitments to expand services increase, professional personnel shortages intensify and manpower problems multiply.

We have supported, and are considering research proposals relating to education program development for technician and subprofessional-level jobs in a number of fields; for example, health and social welfare, legal services, education, law enforcement and corrections, urban redevelopment and city planning, and municipal government. The following are examples of funded projects, and proposed studies that could be funded if fiscal year 1968 appropriations permit.

A. DAVR-FUNDED PROJECTS

1. New York State Department of Education is designing new kinds of educational programs, in 10 paramedical occupations, to provide students with skills, knowledges, and aptitudes in this field.
2. The Pittsburgh (Pa.) public schools system is directing the development of a technical institute for paramedical occupations with the cooperation and participation of Pittsburgh hospitals.
3. Arizona State University has completed an extensive curriculum analysis of 25 paramedical programs to establish guidelines for the development of a core curriculum in these occupations.
4. Professional health organizations with DAVR support are analyzing and reassessing the functions and responsibilities of health professionals to identify those which might be organized appropriately and innovatively for workers educated and trained at subprofessional levels. This would serve multiple purposes—relieved hard-pressed professionals of some of their tasks which require less than professional level skill, provide trained manpower to make available services that are not now being provided because of professional manpower

shortages, and develop new work and career opportunities at the subprofessional level within the field.

Two related research projects were designed to test the feasibility of developing comprehensive models of health manpower requirements and needed education and training programs in urban and rural settings. The urban study, now completed, was conducted by the Indianapolis Hospital Development Association in cooperation with a team of consultants from Booz Allen & Hamilton, management consultants, Chicago, Ill. The rural study is being conducted at Iowa State University at Ames, Iowa, by an interdisciplinary research group in cooperation with State professional associations and State government officials.

5. The National Health Council and the American Association of Junior Colleges established a joint committee composed of key professional associations, accrediting bodies, and educational leaders, to reduce barriers that impede innovative education and training efforts and career mobility in subprofessional health jobs.

6. The United Hospital Fund of New York conducted the first institute designed to create a linkage between public and parochial high school guidance programs and current and emerging subprofessional manpower needs in community health services in New York. This prototype institute has stimulated planning in other cities for the holding of similar meetings.

7. DAVR conceived, and actively assisted, the Center for Vocational and Technical Education at Ohio State University in planning, developing, and conducting a national research planning conference in technical education involving educators, planners, technician officials, and private industry representatives. The meetings identified many new and emerging technician-level occupations with significant numbers of employment opportunities; and recommended priorities for research efforts in curriculum development and advance program planning.

8. In answer to the growing manpower needs of hospitals, laboratories, and manufacturers of biomedical equipment, DAVR in supporting the Technical Education Research Center, Cambridge, Mass., in a study to analyze employment opportunities, job skills, and recruiting procedures in this field and to develop appropriate curriculums for the training of biomedical equipment technicians.

9. The growing needs of industry for personnel with combinations of significant skills that cross heretofore traditional skill lines (electrical, electronic, chemical, and mechanical) justified DAVR support for a project at Oklahoma State University for a job analysis and curriculum development project to provide preparatory training for a new and emerging technician-type occupation that combines electromechanical skills.

10. The National Committee for Employment of Youth will conduct, with DAVR support, a 3-day workshop designed to reduce existing institutional barriers to the development and use of subprofessional personnel.

11. Wayne State University, in conjunction with the Detroit Board of Education is experimenting with curriculum revision in a traditional vocational education field—business and distributive education—in order to adapt existing programs to changing employer

requirements for youth entering office, retail, and related occupations. The demonstration phase of this program is currently underway in three Detroit high schools.

12. A study being conducted by the Institute of Human Resources, University of Wisconsin—Milwaukee, will identify the hidden and unstated barriers to the employment of nonwhite workers and recommend how such knowledge could be used in public school systems to equip disadvantaged youth with appropriate social and personal skills needed to expand their opportunities for employment.

13. A conference was held by the National Association of Mental Health to (*a*) help professional staff members in State mental health associations gain increased knowledge and understanding of the creative contribution that mental health staff, below the professional level, can make to meet the increased mental health needs of our population, (*b*) enlist their active cooperation in effecting changes in local mental health manpower development programs.

B. DAVR-PLANNED RESEARCH ACTIVITIES (NOT YET FUNDED)

1. The Division of Welfare, Hillsborough County, Fla., has proposed a plan to recruit and train indigenous, underemployed youth and adults as public assistance technicians in career ladder positions with continuing education possibilities. The entry jobs relate to helping professional social workers in the rehabilitation of functionally retarded and emotionally disturbed clients.

2. A proposed study by the YMCA of Metropolitan Chicago will examine selected areas of professional responsibility associated with social services, identify realistic subprofessional roles, establish curriculum, and educate and train technicians. Trainees will be chosen from the disadvantaged and school dropouts.

3. The New York University School of Education proposes to examine the role and function of recreation and recreational therapists in extended medical care facilities, and develop subprofessional employment opportunities and appropriate educational curriculum.

4. Lane Community College, Oregon, will develop an occupational structure which will provide career opportunities for persons entering the field of home health care. The study will delineate skills and knowledge required by well trained home-health aides and prepare an educational program which will meet the identified needs of home health aide work.

5. Bowman Gray School of Medicine and the North Carolina Baptist Memorial Hospital proposed research to develop core curricula and demonstrate the value of full-time faculty in a paramedical school. Culmination of the program will be to teach subprofessional paramedical personnel in one central school facility.

6. The Technical Education Research Center, Cambridge, Mass., proposes to analyze employment opportunities in the field of nuclear medical technology and develop and pilot test an integrated post-high school technical education program for nuclear medical technicians and nuclear medical research technicians in hospitals, medical research institutions, private clinics, and other organizations.

7. A proposed study by the Institute for Local Self-Government, Berkeley, Calif., would analyze municipalities as a likely area for new

subprofessional careers. It would investigate and develop career opportunities in municipal and State governments.

8. The School of Criminology, University of California, Berkely, proposes a demonstration project on the role of vocational education in the development of new occupations in the correctional system. It would analyze basic tasks performed by the correctional system, reorganize them into new organizational roles, and develop an experimental occupational structure for these new tasks. The study would develop descriptions of jobs, curriculum, and training for less than baccalaureate-level jobs. Initial pilot training programs based on the new organizational structure would be conducted.

Additional proposals are being developed with DAVR-technical assistance to expand the number and variety of occupational areas for the establishment of new vocational education programs:

- (*a*) Museum Technicians and Aides
  - Sponsor: Smithsonian Institution
- (*b*) Education and Technician Manpower in the Atomic Energy Field
  - Sponsor: Southern Interstate Nuclear Board (17-State consortium).
- (*c*) Community College Programs for Municipal careers
  - Sponsor: City University of New York and New York City Board of Higher Education
- (*d*) Development of Subprofessional Career Opportunities in Library and information Services
  - Sponsor: University of Wisconsin and American Library Association, Milwaukee
- (*e*) Development of Subprofessional Career Opportunities in Oceanography
  - Sponsor: Midwest Institute of Technology and Florida Keys Junior College
- (*f*) Career Opportunities for Subprofessional Workers in the Mental Health Field
  - Sponsor: Southern Regional Education Board (15-state consortium)
- (*g*) New Careers Program in Education (Auxiliary Teacher Personnel)
  - Sponsor: Arthur Pearl, University of Oregon
- (*h*) Utilization of Military Retirees in Second Career Paramedical Health Occupations
  - Sponsor: University of Maryland.
- (*i*) Developing Subprofessional Career Opportunities in Pediatrics
  - Sponsor: University of Washington Medical School
- (*j*) Developing Opportunities for Military Retirees as Health Extension Service Personnel
  - Sponsor: University of Washington Medical School
- (*k*) Development and Evaluation of Comprehensive Training for Environmental Systems Technicians
  - Sponsor: Clemson University, South Carolina
- (*l*) Career Opportunities at the Subprofessional Level in Public and Private, Legal and Judicial Agencies and Establishments
  - Sponsor: Center for Continuing Education For the Bar, University of California Extension

DISSEMINATION OF RESEARCH FINDINGS

Most of the research projects sponsored under section 4(c) of the Vocational Education Act of 1963 are highly pragmatic. They are addressed to the real and pressing problems of the vocational educator. In many cases, the findings of these studies have immediate implications for changes in vocational education programs in schools. Because of this, we have been continually concerned with communicating research findings to State directors of vocational education, curriculum planners, and educational decisionmakers at the local level.

One effective device for passing on information about research has been through the training institutes given each summer for vocational teachers and administrators. These institutes, while helpful, have not been sufficient. The following steps have also been taken:

1. We have sponsored national and regional conferences to communicate research findings to the educational community.
2. 4(c) funds have been used for the establishment of 44 State vocational education research coordinating units (RCU's) and two national research and development centers. One of the principal purposes of these coordinating units is to disseminate research findings from the State level down into the local community.
3. Listings of on-going division of adult and vocational research projects are provided on a quarterly basis to the State directors of vocational education. A listing of completed reports is also provided the State directors.
4. The Division will contribute information on a monthly basis to the AVA Journal highlighting on-going and completed research.
5. The Division is sponsoring the writeup of a series of case studies and innovations which will be distributed to State boards of vocational education, teachers, administrators, and lay leadership at the local level.
6. The Bureau of Research in the Office of Education has developed an educational research information distribution service with a special vocational education satellite at the center for research and leadership development in vocational and technical education located at the Ohio State University. This represents a complete research information storage and retrieval capability for anyone seeking information with respect to on-going research in vocational education as well as completed reports. In addition, the educational research information center (ERIC) issues a monthly listing of on-going research projects which receives wide distribution in the educational research community.
7. Principal staff members have participated in professional society meetings and conferences, such as the American Vocational Association, the American Educational Research Association, the American Economic Association, as well as seminars and panels.
8. The Division is planning through the Government Printing Office to publish completed projects which seem especially relevant and significant in shorter, more readable form for widespread distribution.
9. The Division is working with the National Committee for Support of the Public Schools to develop an experimental research information dissemination project over an 18-month period. At the end of that time an evaluation will be made to assess the impact of this more intensive dissemination undertaking.
10. Principal staff members of the Division of Adult and Vocational Research are encouraged to prepare articles highlighting some of the research findings and the work of the Division in professional journals.

While we recognize that the dissemination problem is a critical one, our programs in this connection have not really been put to the test since the vocational education research demonstration and training program is relatively new. As of April 1, only 113 projects have been completed.

RECOMMENDED AMENDMENTS TO THE VOCATIONAL EDUCATION ACT OF 1963

The first 2 full years of program operation indicate that research and development support for vocational and technical education could be greatly improved by amending section 4(c) to authorize the Commissioner:

1. To enter into contracts with profitmaking firms. There are a number of profitmaking firms capable of doing excellent research, and development work in support of vocational education, particularly in the area of computer assisted instruction, vocational school system design, management and evaluation, and related applications. Many of these firms have been used over the years by the Department of Defense for training of its personnel. Their expertise and experience is not now available to vocational education because of the present limitation of section 4(c) to grants to nonprofit institutions only. We are prevented from exploiting the capabilities of these excellent research and development corporations because of their exclusion as eligible applicants and the restriction to the use of grants.

2. To disseminate the results of supported projects. Funds appropriated under section 4(c) of Public Law 88–210 are currently limited to the support of research, training, and experimental, developmental or pilot projects. The lag between the generation of innovative techniques, improved materials or procedures and their application must be reduced to a minimum if optimum program development is to occur. The results of completed projects should be quickly distributed and translated into program operation. Authorization to use grant moneys to support dissemination activities would greatly facilitate this process.

We appreciate the opportunity to appear before this committee and trust these remarks will be of some assistance as the committee deliberates amendments to the vocational education legislation.

Thank you, Mr. Chairman.

Mr. Pucinski. Thank you, Mr. Bushnell.

We will now hear from Dr. Worthington.

Dr. Worthington. Mr. Chairman and members of the committee, there is no doubt in my mind that section 4(c) of the Vocational Educational Act of 1963 has resulted in valuable contributions to vocational research and development in New Jersey. There is also no doubt in my mind that the accomplishments made with 4(c) funds in New Jersey could not have been made without such financial assistance.

I call to your attention some of the following programs that have been funded under 4(c) since the passage of the act.

At the State government level, New Jersey received a grant of $103,000 in June of 1965 and a grant of $92,870 in December of 1966 for the purpose of coordinating, stimulating, and encouraging occupational research and development activities in local districts, in colleges and universities, by nonprofit organizations and by State department of education personnel.

With the aid of these funds we assembled a staff of six research and development specialists in the areas of pilot and demonstration programs, program planning, vocational facilities planning, program evaluation and vocational curriculum research. Time permits me to mention only a few examples of the activities generated by this staff.

1. They have provided planning, evaluation, and administration of a comprehensive pilot program under which 352 vocational education pilot projects were put into operation in school settings where they had never existed before.

In the 1966–67 school year nearly 17,000 young people are receiving occupational education in these projects which are uniquely structured to meet their needs. Included among these youth are young people with very definite special needs as shown by the following sample of course titles: Introduction to Vocations (Educables); Office Procedure for the Handicapped; Employment Orientation (Educables); Visual Communications Technology (Deaf); Introduction to Vocations (Neurologically Impaired); Agricultural Training for Educables.

2. The Office of Education recently awarded a 4(c) grant of $40,109 to the Division of Vocational Education and the New Jersey Police Training Commission to conduct a study titled, "Development of Multimedia Programed Instructional Materials for the Training of Law Enforcement Officers."

The study is designed to develop and test new instructional techniques and media in police training. Within the context of action research, programed instructional material will be developed for use with the Edex system in mobile police training vans. One of the principal investigators on this project is a member of the research coordinating unit in the Division of Vocational Education.

3. The research coordinating unit administers a 2-year project, partially funded by the Ford Foundation, the ultimate purpose of which is to develop an awareness in elementary schoolchildren of the tools and concepts of a technological society in ways appropriate to their developmental levels. This project entitled "Technology for Children" is rapidly attaining national attention due to its uniqueness.

4. The research coordinating unit is currently administering the development of a master plan for vocational education in New Jersey. To date over 100 leaders in vocational education in the State of New Jersey have been involved. A philosophy for a total program of vocational-technical education has been developed, an executive committee formed and eight study areas identified.

5. The research coordinating unit has assigned one staff member the responsibility for implementing research and development information systems. These include coordination of information services of the Division of Vocational Education with those of the rest of the department; maintenance of a statewide inventory file of occupational research and development projects; provision of information related to research and development in vocational education on a statewide basis; maintenance of liaison with ERIC, the Educational Research Information Center of the U.S. Office of Education; publication of Feedback, our newsletter which disseminates information on research and development in vocational education on a statewide basis.

Nine other major 4(c) projects have been funded in New Jersey through the current fiscal year and it is possible that there could have been more had funds been available.

The nine projects are classified into 13 priority areas which are indicative of the scope of the problems for which we need to find solutions. I will identify the priority area and the title of the projects. The titles are descriptive of the actual projects and it will in the interest of time preclude a synopsis of nine projects.

Priority area No. 1 is identified as "program evaluation." The New Jersey project in this classification is:

1. "The Development and Testing of an Evaluation Model for Vocational Pilot Programs" ($7,498). This study is directed from Rutgers, the State university.

The second priority area is "curriculum experimentation." New Jersey has received funding for three projects in this area.

1. "The Development of a Master Teacher Training Curriculum for Teachers of Occupational Level Training Programs" ($46,001). This work is being conducted at Rutgers, the State university.

2. "A Study of the Effectiveness of Directive Versus Nondirective Vocational Teachers as a Function of Student Characteristics and Course Format" ($27,814). Rutgers, the State university, was the recipient of this grant.

"Personal and social significance of work" is the third classification. Educational Testing Service of Princeton is conducting a longitudinal study entitled, "A Study of Intellectual Growth and Vocational Development" ($316,410).

Priority area No. 4 is "personnel recruitment and development." Three projects are funded in this area, all at Rutgers, the State university.

1. "A Pilot Study in Advanced Instrumentation for Technical Instructors" ($5,837).

2. "The Advanced Degree and Vocational-Technical Education Leadership" ($30,270).

3. "Development of a Model for A Technological Center for keeping Vocational-Technical Teachers Updated in Their Fields" ($103,060).

"Programs organization and administration" is area No. 5. The one project in this area, "The Application of the Judgmental Procedure to the Development of Programs of Vocational and Practical Arts Education," is centered at Trenton State College where courses in administration for vocational-technical schools are available ($71,061).

The seventh area is "occupational information and career choice." In the recent past there has been much discussion concerned with the serious problems of vocational guidance. Adequacy of guidance as it relates to availability has been the major focus, but we need to know more about the process of individual occupational choice and vocational development. The second part of the educational testing service project, "A Study of Intellectual Growth and Vocational Development," lies in this priority area.

The effect of these 4(c) funds on research and development in New Jersey has only begun to fill the need. As in any other enterprise, research and development in vocational education is needed for continued progress. Much more financial support is needed before we reach an adequate support level in this vital area.

Let me conclude by pointing out that the Vocational Education Act of 1963 has provided New Jersey with the capability for making great strides in providing vocational educational opportunities for large numbers of youth and adults who previously had few such opportunities. I have appended to this statement a copy of a brochure entitled, "Developing Human Resources," which describes the record of progress in vocational education in New Jersey primarily as a result of the Vocational Education Act of 1963.

(The brochure follows:)

DEVELOPING HUMAN RESOURCES—THE DIVISION OF VOCATIONAL EDUCATION, NEW JERSEY DEPARTMENT OF EDUCATION, TRENTON, JANUARY 1967

FOREWORD

This is a report of the outstanding record of progress accomplished in New Jersey in vocational education since January 1965 when the new state plan for vocational education became effective.

The need for expanded vocational education was made clear in a report of a Blue Ribbon Committee of leading citizens to the State Board of Education in October 1964. The Committee made 20 specific recommendations and these became our guidelines for action. This report cites some highlights of progress made in the last two years in applying these guidelines and also indicates projections for future growth.

Increased awareness of the need for occupational training, State appropriations, new federal legislation and positive action by the State Board of Education are all part of the driving forces behind this achievement. In his fifth annual message to the New Jersey Legislature in January 1967, Governor Richard J. Hughes stated, "State and Federal appropriations have made possible the rapid expansion and improvement of vocational and technical education programs. Enrollments have more than tripled for secondary and post-secondary youth and adults in the past three years. Cooperative vocational education, which provides school and work experience for high school students, has been assisted by more than 4,000 New Jersey companies in providing training stations in more than 130 different job classifications. Six multi-occupational skill centers have come into operation. Over 15,000 students who were not enrolled in vocational education a year ago are now receiving education and training for employment in more than 350 pilot projects."

It should be pointed out that the accomplishments described herein represent only a beginning. There is much remaining to be done. More programs, more teachers, more facilities, and more funds (State, local and federal) are urgently needed. In the present school year, for example, an estimated 70,000 boys and girls in New Jersey schools who could have profited by vocational training were denied the opportunity due to a lack of facilities. In addition to meeting present needs, our findings indicate that the greatest increases in the New Jersey labor force, through 1970, will be in the age groups where vocational education can do the most good.

The support and effort of many individuals and groups have made possible the growth of vocational-technical education in New Jersey since the implementation of the Vocational Education Act of 1963. With this continued support and cooperative effort our record of progress in vocational education can continue to move ahead to the mutual benefit of all—our children, our communities, our State, and our Nation.

BUSINESS AND OFFICE OCCUPATIONS EDUCATION

Business and Office Occupations Education is a vocational education program designed to prepare students for office work. The program includes all the required general education courses such as English, mathematics, the sciences, and their electives. In addition, each student follows an individual sequence in office education and related courses which leads to vocation competency and advancement in office careers.

Prior to the passage of the federal Vocational Education Act of 1963, business education did not fall within the scope of federally subsidized vocational education programs. In fact, business education was not widely categorized as vocational—even by business educators. Educational interests were largely academic and only a small number of pupils were afforded skill development in vocational business education. In addition to the limited numbers trained, there existed a similar limitation on skill areas treated. Only 15 cooperative office education programs (provision of classroom instruction accented by simultaneously offered practical job experience) were in existence in New Jersey in 1964, a majority of which lacked vital teacher coordination and supervision.

Through funds provided under the 1963 federal Act and matching State funds, business and office occupations education classes today serve nearly 150,000 students in all the secondary school districts. Over 100 cooperative office education programs are now in existence and the number of business teachers approximates 1,800. Pilot and model programs designed to strengthen entry level occupational skills of high school students have been initiated in New Jersey schools in the areas of stenography, bookkeeping, secretarial and clerical practice, business machines operation, modern duplicating methods and electronic data processing. Concurrently, experimental instructional approaches have been undertaken involving stenography, office practice, and electronic data processing.

Business Education—Tomorrow

In the future, business education will concern itself with the provision of programs for a growing segment of the school population—the employment bound. Such programs will fit the changing demands and requirements of business, changing occupational patterns, and advanced business technologies. Curriculum patterns and instructional methodologies must necessarily be revamped.

Supplementing the traditional stenographic, bookkeeping and clerical needs, emerging occupational demands include:

. . . accounting and computing

. . . business data processing systems

. . . records management and retrieval

. . . personnel training

. . . supervisory and administrative management

These demands will be realized through:

. . . expanded vocational facilities and equipment provided by secondary schools, post-high schools, vocational schools, technical institutes, private business schools and colleges.

. . . expanded teacher preparation programs embracing the new technologies.

. . . expanded secondary school offerings.

. . . increased realistic learning experiences for high school students as provided through cooperative occupational programs. (At least 200 of New Jersey's secondary schools can support such a program.)

. . . increased involvement of business and industry in our educational programs.

COOPERATIVE INDUSTRIAL EDUCATION

New Jersey's Cooperative Industrial Education programs are designed to help the student make a transition from school to work. In this program the student goes to school part-time and works a specific number of hours in an approved industrial occupation, receiving school credit as well as valuable job experience and a financial return.

The Cooperative Industrial Education programs have grown very rapidly in New Jersey in the last three years. In September 1963, there were five approved programs with 108 students. In successive Septembers, the numbers of approved programs rose to 13 (with 260 students), 50 (with over 100 students) and in 1966, 150 programs (with about 1,900 students).

New Jersey was one of the first states to recognize the need for varying types of cooperative programs. Three distinct programs were developed as follows:

1. *Part-time Cooperative Trade Occupations Programs*, designed to prepare students for entrance into trade employment. This program has been structured for those students capable of becoming skilled craftsmen.

2. *Part-time Cooperative Industrial Occupational Training* embracing similar objectives as the Trade program cited in 1, above. This program has as its emphasis, training in quickly learned skills; i.e., bagger, assembler, office messenger, packer.

3. *Part-Time Cooperative Employment Orientation Program* designed for educable (mentally retarded) students. This program, too, involves quickly learned skills and emphasizes adjustment from full-time school to full-time employment.

Under these programs, the following areas may be included:

Orientation to vocations, tailored to specific pupil needs.

Occupational conditioning in which students meet realistic job situations through in-school experiences.

Training in a variety of simple and complex skills depending on individual pupil abilities.

Placement in jobs in one of the three levels of Cooperative Industrial Education, cited above.

As these work experience programs continue to grow, it is anticipated that the need for better pre-vocational training will become apparent to both educators and personnel in industry. Efforts are already underway to expand vocational preparation—particularly for pupils with special needs, such as the handicapped or brain-damaged.

HEALTH OCCUPATIONS

Health Occupations education prepares high school students and adults for entry level employment in the health field. Occupational areas of training include practical nursing, nurse aide/orderly, dental and medical assistant, and hospital service worker. Whenever a health occupations program is offered, the student has, as a part of the educational program, a clinical affiliation with local health agencies (hospitals, clinics, medical and dental offices). This experience is supervised by the school instructor to insure that the experiences in the clinical area are educationally oriented.

In 1964, there were 86 high school students enrolled in Health Occupations education programs in New Jersey. Previously, existing programs in Practical Nursing, Medical Assisting and Dental Assisting prepared adult students to enter these occupations. In 1965–66, a total of 214 high school students were enrolled in Health Occupations educational programs. There are several reasons for this increase:

1. Eight Practical Nursing programs now include high school students at the 12th grade level.
2. Demands for Practical Nurses have increased sharply due to Medicare legislation.
3. Additional programs in other areas of Health Occupations education have been offered to high school students.

Coincidentally, the number of adults enrolled in these programs has also continued to increase.

The need for workers in Health Occupations will continue to grow due to the lengthening life span, increasing population. Medicare legislation, extended care facilities and increased scientific and technical innovations in medicine and allied fields. New health occupations will appear and students will be prepared for entry into these areas. Many of these programs may be offered at Health Occupations Training Centers providing a diversity of courses and serving large geographic areas.

INDUSTRIAL ARTS

Industrial Arts education deals with exploration of industrial occupational opportunities. It provides experiences with a wide range of materials, tools, processes, products, and occupations typical of our industrial society. It orients students through study and experience in school shops and drafting rooms to the industrial aspects of our culture enabling them more intelligently to select consumer goods, to be more efficient producers, to use leisure time more wisely and to act more intelligently with regard to matters of health and safety in an industrial setting.

A trend in Industrial Arts education at the secondary level is the shift in emphasis from a broad general industrial concept to a program that offers depth in occupational families; for example, drafting, electronics, or metal working. Newer programs in Industrial Arts require shops with greater floor space, equipped with more industrial power and hand tools, and taught by personnel with greater depth of industrial experience and education.

Industrial occupations

Industrial Occupations education is a program designed to provide employment-bound secondary school youth with basic skills, knowledge, training and adaptability necessary for entering a semi-skilled or operative industrial or service occupation. Successful entry into the world of work is the major goal. Most teachers in this area possess both advanced training and industrial experience. A combination of Federal and State funds has made these multi-track offerings possible on a pilot basis in about 100 schools throughout New Jersey.

The number of students in Industrial Occupations education programs has nearly doubled after the first year of operation in 1965–66, with an increase from 1,966 to 3,150 students. A 50% enrollment increase is anticipated for 1967–68.

Industrial Occupations programs are planned to serve students in grades 11 and 12.

In this program, existing comprehensive high school shop facilities and courses are up-graded and extended in order to provide practical learning experiences that are geared to current and anticipated labor market demands. Industrial Occupations courses also provide an effective foundation for those seniors who desire to participate in cooperative Industrial Education programs (described in another section of this publication).

MANPOWER DEVELOPMENT AND TRAINING

The Manpower Development and Training Act of 1962, as amended, provides for occupational training and retraining of unemployed and underemployed youth and adults. Since 1962, MDT programs in New Jersey have served approximately 19,000 individuals. Some typical occupational areas provided include: oil burner installation, meat cutting, automobile mechanics, radio and television repair, machine operation, upholstering, commercial cooking, and key punch operation. Nearly $25 million in federal funds have been committed for the total MDT program in New Jersey in the last two years. Funds are used to staff, equipment, facilities, and other related items.

Because of the great number of disadvantaged persons to be served under the Act, recent amendments have authorized funds for supportive services in several additional areas: basic education as it relates to the trainees' selected occupation; personal and vocational counseling; psychological assistance; and limited health services.

Since 1965, six multi-occupational skill centers have been created in New Jersey: Tri-County in Salem County; Camden; Trenton; Newark; Jersey City; and Hackensack. These six training centers are conducted in facilities independent of existing county vocational-technical schools and comprehensive high schools in order to provide more flexibility in occupational offerings and related services. The Division of Vocational Education has supervised the development and establishment of these centers.

In addition to the six independent centers, multi-skill programs have been developed in the Essex County Vocational-Technical Schools, Passaic County Vocational-Technical Schools, and the Newark Public Schools.

Currently under development are three rural multiskill centers, in cooperation with the Office of Economic Opportunity, to serve disadvantaged persons in Monmouth, Cumberland and Warren Counties.

To supplement these centers, numerous single class-size occupational training programs have been introduced throughout the State—in vocational-technical and comprehensive high schools, private trade schools, private business colleges, correctional institutions, and public and private hospitals.

With the cooperation of the U.S. Bureau of Apprenticeship and Training, pre-vocational and basic education courses are being administered to trainees prior to their entry in on-the-job training or into selected apprenticeable trades. Other efforts include a refresher program for registered nurses, directed by the New Jersey Hospital Trust Association; the training of merchant marine engineers conducted by the Brotherhood of Marine Officers; basic education and occupational training in the New Jersey Reformatory at Annandale, with the cooperation of the Department of Institutions and Agencies; machine trades training programs for students prior to their entry into an apprenticeship training program, supervised by the National Tool, Die and Precision Machine Association, and the New Jersey Tool & Die Association; and a joint training program in basic education and occupational skills in Newark, with the cooperation of the United Community Corporation. The Division of Vocational Education is responsible for the approval, administration, and/or supervision of all the above programs.

Subject to continued availability of Federal funds, further refinements in this program will continue to be made in basic education and pre-vocational education as well as in other areas to better meet the needs of unemployed and underemployed youths and adults in New Jersey.

TECHNICAL EDUCATION

Technical education is offered chiefly at the post-high school level. It is designed to prepare students for various positions in technical or scientific enterprises, requiring the application of scientific and engineering knowledge. The graduates of such post-high school programs are usually referred to as technicians or semi-professionals. They work in support of engineers or scientists.

Technical education is now offered in only a limited number of our public schools. As a result, the number of individuals presently enrolled in these programs represents but a small fraction of the great potential that can and should be accommodated.

Additional growth in this important field will depend largely on the broad acceptance of vocational-technical education, particularly at the local district level. Expansion of the needed, diverse, technical areas will also be determined by the readiness and ability of the schools to provide essential, updated, physical facilities, the recruitment of appropriately qualified administrators and teachers, and well-designed curriculums.

Rapid technological developments in research and production are causing widespread changes in technical occupations. Traditional occupations are being changed through the application of electronics, instrumentation, data processing and computers with the result that many new employment opportunities are emerging. It is the consensus of specialists in the field that technical education will continue to provide a significant source of vital manpower in the decade ahead and, further, that this area will occupy a most important place in the total national educational program.

INTRODUCTION TO VOCATIONS

Introduction to Vocations is a pilot program in 26 New Jersey high schools. It is organized as part of the over-all education and training of ninth grade students to aid them in understanding their possible choices of a logical vocational career. It is a regularly scheduled subject-course in the school curriculum.

Besides classroom instruction in the informational units by a counselor or an Introduction to Vocations teacher, students are scheduled for three to four week periods in industrial arts, home economics, business education, and the science laboratory facilities for manipulative, exploratory experiences. Job awareness is encouraged through field trips, speakers from business and industry and personal interviews.

It is anticipated that Introduction to Vocations will spread from the original 14 schools in 10 counties in 1965 to nearly 300 high schools in all 21 counties by 1975. During the next decade, student enrollment in this program is expected to increase from 800 to 12,000 and the number of local staff involved from 156 to 500.

As future Introduction to Vocations projects in pilot school districts are developed, it appears likely that the schools will combine current ninth grade exploratory-orientation programs and guidance activities into this more comprehensive, direct experience approach. As more activities are introduced at the high school level to help children develop more realistic awareness of occupational opportunities, related curriculum offerings and instruction will also be benefited.

The enthusiasm with which school districts in New Jersey have endorsed the Introduction to Vocations program underscores its pertinence for preparing youth to enter the labor world while assisting the individual student in achieving an occupational objective.

DISTRIBUTIVE EDUCATION

Distributive Education provides training in distributive, marketing and sales occupations. Training and experience are given under a cooperative agreement between the employer and school officials. This agreement insures that the training program is conducted in such a way that students will supplement their practical training with a program of related instruction. Students go to school part of the day and work for pay for local businesses, as a learning experience, the rest of the day.

Distributive Education occupations are found in such businesses as retailing, wholesaling, finance, insurance, real estate, transportation, utilities, and communications.

The program has been developed to serve the education and citizenship needs of students and adults within the framework of their career goals. Students may prepare themselves for entry into the labor market, for upgrading themselves in their occupational specialization, or for transfer to better salaried employment.

The population explosion will cause an increase in business services and therefore more qualified employees will be needed. Recognizing the increased need for more workers with distributive skills, an expanded Distributive Education program, which will serve grades 9–12, is anticipated by the Division of Vocational Education. With the assistance of federal funds, the Distributive Education program will continue to grow in New Jersey over the next decade.

Post-high school, junior college, college and adult distributive education training programs are also provided by parochial schools, MDT skill centers, and four New Jersey colleges: Montclair State College, Rider College, Rutgers—The State University, and Trenton State College.

Programs have also been developed in order to provide out-of-school youth and adults with opportunities to develop distributive skills.

APPRENTICE TRAINING

Through apprentice training an employee and an employer join together for an educational relationship. Its objective is to help insure a continuing supply of skilled craftsmen needed to further the technical, social and economic standards of our democratic society. The program consists, basically, of specific training on the job and related instruction in the classroom.

There has been a significant increase in the number of programs, students and instructors involved in apprentice training in New Jersey since 1964. The number of trades and occupations for which related instruction is being offered has increased from 43 in 1964 to 49 in 1966. Currently, there are approximately 6,000 individuals registered for apprentice training in New Jersey.

Student enrollment is voluntary and apprentices must complete 144 hours of trade-related instruction.

In the future, the need for skilled craftsmen, especially in the machine, electro-electronic, and building trades, will lead to an expansion of the apprentice training program. The rate with which mechanics and technicians are trained will directly affect the growth of our industrial society.

VOCATIONAL EDUCATION IN NEW JERSEY SINCE 1964

Pilot programs in eight vocational areas have been developed and are operating in—

Agriculture
Business Education
Distributive Education
Health Occupations
Home Economics
Industrial Occupations
Introduction to Vocations
Technical Education

In Agriculture, present school programs were broadened to include training for agri-business and distribution, ornamental horticulture and floriculture, recreational conservation and forestry, and food processing.

In Business Education, model business education centers were established in 15 counties, pilot studies in the use of electronic equipment for stenography classrooms were initiated, and 85 cooperative work experience programs were added.

In Distributive Education, 34 new pilot programs were established and distributive education curriculums were initiated on the college level at Rider College and Trenton State College.

In Health Occupations, 4 new practical nursing programs were initiated and guidelines were developed to assist schools establish programs for nurse aides, hospital workers, and medical and dental assistants.

In Home Economics, diversified occupational training for students from low income levels was provided and programs were started to prepare students as child care center assistants and for food service occupations in commercial kitchens, hospital dietary kitchens and nursing homes.

The Division was designated by the Governor as the State approval agency for appropriate educational provisions of the new G.I. Bill.

The development of a Master Plan for Vocational-Technical Education in New Jersey was initiated.

The Division actively participated and provided leadership in the 1966 Governor's Symposium on Education and Training for Employment.

The continued expansion of county vocational schools was encouraged.

Four completely new programs, serving a total of 25,000 students, were developed in:

Cooperative Industrial Education
Industrial Occupations
Introduction to Vocations
Vocational Work-Study

To date, 19,000 New Jersey citizens have been served through the Manpower Development and Training Program. Prior to 1965, there was only $3 million obtained for MDT training. In the last two years, nearly $25 million has been committed for new programs. Six new multi-occupational skill centers are in operation. Three multi-skill programs and three rural multi-skill centers have or are being developed.

Teacher education, including industrial arts and vocational guidance, were strengthened and expanded in vocational-technical education at the college and university level, in both public and private institutions:

Glassboro State College
Jersey City State College
Montclair State College
Newark State College
Rider College
Rutgers—The State University
Seton Hall University
Trenton State College

Future goals and needs

More students and adults to be served.

Extension of current programs at all levels and types of schools.

More buildings, facilities, and equipment.

Introduction of new programs and pilot projects.

More college training programs and instructors.

Continuation of research, evaluation, and experimentation.

Strengthening and improvement of vocational guidance services.

Development of more programs for disadvantaged, unemployed and underemployed persons, and youth with special needs.

Establishment of more programs at the post-high school level.

Continue cooperation with business, industry and labor.

Development of orientation and pre-vocational programs at earlier levels.

Completion of State Master Plan for Vocational-Technical Education.

Maintain quality and high standards of current efforts.

Develop a system in high schools for employment bound students.

PILOT AND DEMONSTRATION PROGRAMS

The Occupational Education Pilot Program was established through funds made available by the State and under the Federal Vocational Education Act of 1963. This program is designed to initiate, strengthen, and expand vocational experience opportunities for high school youth by offering entry level job skills and information. Projects may involve occupational skill instruction, occupational curriculum development, and the development of innovative occupational teaching aids.

During the past two years, 352 action type research pilot projects involving local high schools, vocational technical schools, and several colleges (both public and private), have been initiated. The breadth of program areas covered by these pilot projects is graphically displayed on the opposite page. The majority of the programs seek to provide new experiences in saleable skills for students with special needs.

Other projects, including programs establishing Model Business Centers, Electronic Stenography Research, and a Distributive Education Leadership Training Program were implemented within the Division of Vocational Education and in some instances through cooperative efforts with several colleges.

Unique programs are those in Package Line Mechanics and Visual Communications Technology. The first program seeks to train mechanics for the maintenance and repair of industrial packaging equipment. The second program involves students at the Marie H. Katzenbach School for the Deaf, West Trenton, in skill training in the technological aspects of advertising production, graphic design, commercial and industrial photography, drafting, and printing and offset duplication.

More than 150 New Jersey school districts have utilized State and Federal funds to initiate new concepts and innovative instructional procedures in occupational education. Many students in current and future projects who need programs of an occupational nature will through these pilot and experimental programs, gain valuable preparation for assuming their place in the employment market. It is expected that many more unique and innovative programs will be proposed in the future by local school administrators and approved by the State Board of Education.

HOME ECONOMICS

Home Economics education has two major program aspects:

The preparation of elementary, junior and senior high school students, and adults for successful and satisfying home and family living, and

The preparation for occupations which utilize home economic skills, knowledge, and appreciations.

Home Economics programs in the schools may include:

Child care and development
Textiles
Clothing and personal appearance
Foods and nutrition
Family health and home safety
Housing, equipment, and home furnishing
Personal, family and community relationships
Personal and family economics
Consumer education
Home management

In the past two years, increased emphasis on comprehensive home economics programs has stimulated the broadening of programs to meet the needs of more of our students.

Because of the growth of Home Economics programs at the elementary, junior high school, senior high school, and adult education levels, more professional personnel are needed. At present, Glassboro State College, Montclair State College, Douglass College, and the College of Saint Elizabeth are the colleges preparing home economics teachers in New Jersey.

PUBLIC INFORMATION CONCERNING VOCATIONAL EDUCATION

The Division of Vocational Education has attempted to inform the State's many "publics" about new programs, trends, approaches, and developments in Vocational Education in New Jersey. This information is presented through news releases, monthly and quarterly bulletins, brochures and pamphlets, and by means of correspondence, speaking engagements, and staff participation in conferences and workshops.

In 1966, the Division of Vocational Education and Rider College joined in a venture to create a Pilot Public Information Unit. The primary purpose of this unit is to promote and enhance the image of Business and Distributive Education. To accomplish this, students, parents, guidance personnel, and school administrators have been made more familiar with these educational programs through speakers, career days, and publications. The public schools in Mercer County have served as the primary experimental group with some information being distributed to schools throughout the state. Thus far, over 5,000 students, mainly at the junior high school level, have participated in career programs conducted by this unit.

VOCATIONAL GUIDANCE

The aim of Vocational Guidance is to help the student explore, and successfully engage in, school experiences that will best serve him and his future career needs.

Through counseling, orientation programs, testing and other activities, the counselor provides the student with a background so he can develop future plans and make decisions concerning educational and occupational choices.

The counselor also assists the student to evaluate how well he progresses as he carries out his plans.

Counselors in New Jersey schools are starting to direct greater emphasis to vocational guidance for pupils through a variety of approaches and activities including:

Visitations to business and industry.

Assistance with the placement of students in part-time and full-time employment.

Talks by people representing different trades and careers.

Cooperation with other staff members so that vocational aspects of school subjects are highlighted.

Meetings with parents and with community groups to review occupational opportunities for students.

Orientation to vocational educational programs.

VOCATIONAL WORK-STUDY PROGRAMS

The Work-Study Program is designed to reach vocational students, ages 15–20. This program was designed to give financial aid to needy students who perform work for local public agencies. In the performance of this work, the student receives valuable training by working with mature people. A frequently heard comment from districts participating in this program is that the students have also progressed academically and maintain a close relationship with the school.

The Work Study Program was first started in New Jersey in January 1965, at which time 44 schools participated with 576 students receiving wage benefits.

During the summer of 1965, the Work-Study Program was continued and the students worked a forty-hour week. This benefited a total of 1,250 additional needy vocational students.

In September of 1965 there were a total of 118 districts participating in the Work-Study Program with 1,915 students employed by public agencies.

In spite of a 60% cut in federal funds in September 1966, 92 of 118 participating New Jersey high schools elected to continue this program although they must now shoulder 25% of the students' wage costs.

PRIVATE TRADE SCHOOLS

Private trade schools have been established in New Jersey for more than two decades and have developed into dependable educational institutions. Over the years these schools have trained many people presently serving in the trades and technologies and they have made a definite contribution to vocational education in this State. Currently, there are 39 private trade and technical schools in New Jersey with an approximate enrollment of 5,500 students in 40 trades. Vocational areas include mechanical dentistry, welding, musical instrument repair, automotive repair, diesel or oil burner servicing, drafting and design, electronic technology, and many others.

Each school is approved on an annual basis by the Division of Vocational Education, thus requiring a renewal each year.

A most significant development in the field of private trade schools is the formation of the National Association of Trade and Technical Schools two years ago. The owner of one of New Jersey's private trade schools was the moving force for the formation of this association. Within the past few months this association has established an Accrediting Commission, separate and distinct from the school association, with top level personnel to evaluate and rate those schools wishing to be accredited. It is expected that this Accrediting Commission will receive the recognition of the U.S. Department of Health, Education and Welfare. Among the first group of schools to apply for evaluation were four New Jersey private trade schools.

VETERANS TRAINING

The Division of Vocational Education is the approving agency for vocational schools and courses for veteran enrollment under the new and former G. I. Bills. The so-called Cold War G. I. Bill—P.L. 89–358, became effective on June 1, 1966. It gives educational entitlement to men who have served and will serve in the Armed Forces after 1955. The approval of schools, public and private, and their courses must be in conformity with the provisions of the Federal law and the Veterans Administration regulations. This requires consultation with school officials, visits to the schools and evaluations of facilities and courses. It also requires cooperation with the Veterans Administration on interpretation of regulations and violations of approval criteria.

Veteran training includes courses in public vocational schools, private trade and private business schools, as well as private beauty culture schools and hospital training programs.

The number of veterans currently taking advantage of their educational entitlement is impressive. It is expected that the number will double within the next few months. There is no doubt that the new G.I. Bill, which is expected to continue well into the future, will make an impact upon vocational and technical education in both the State and the Nation.

AGRICULTURAL EDUCATION

Agriculture education offers training to the future farmer, horticulturist, floriculturist, forester, conservationist and the person who will be employed in support of the farmer. Its training embraces preparation for employment in areas dealing with the conservation, production, processing and distribution of agriculture products, and related services. Fisheries occupations are also included in this field.

New Jersey, "the Garden State," still occupies a leading position in agricultural endeavors. Our farm lands return the highest income per acre in the nation; we rate third in gross income per farm, and sixth in net income. New Jersey boasts a $1.7 billion industry in food processing—sixth in the nation.

During 1961–62, supervised farming activities outside of school hours returned to high school students over $400,000, an amount nearly double the combined 1962–63 state and federal subsidy of $242,000.

Agricultural education, on both the secondary school and adult levels, has been offered in New Jersey, without interruption, for the past fifty years. Since 1928, an integral part of this educational program has been the rural leadership and citizenship training afforded through the Future Farmers of America's organization.

Less than ten percent of the secondary schools in the state now offer programs in agricultural education. Increased availability of this curriculum to more students interested in agriculture could easily double the enrollment within the next two years. A continuing need in agricultural education has been obtaining sufficient teaching staff and adequate facilities.

State and federal funds are being expended in a major effort to retain and strengthen the program in agricultural education. Training opportunities have been made available in agri-business and distribution, ornamental horticulture and floriculture, turf and golf course management, greenhouse and nursery management, and commercial fisheries. These programs first were funded as pilot projects in five school districts in 1965–66, and both the programs and number of participating school districts were expanded in 1966–67. In one vocational school, agricultural education is offered to students from four nearby local high schools on a coordinated basis.

The need for agricultural education in the future will continue. For example, New Jersey and many of its municipalities are sponsoring the Green Acres Program while the federal government is similarly engaged in developing and maintaining our national parks to provide recreation for our rapidly expanding population. Such investments require trained recreational conservationists to service these areas. The emergence of these and other new and expanded employment opportunities will necessitate related agricultural education programs in our schools.

RESEARCH

The Occupational Research and Development Branch was established in the Division of Vocational Education, New Jersey State Department of Education, on June 1, 1965, as a result of a grant from the United States Office of Education. Its purpose is to coordinate, stimulate and encourage occupational research and development activities within local school districts, colleges and universities, nonprofit organizations, and the State Department of Education. A second and equally important function is to serve as a clearinghouse for information related to occupational research and development.

The Research Branch is currently participating in several projects of a national scope including the Vocational-Technical Education Evaluation Project, coordinated by Ohio State University, and the project on Research and Development in State Administration of Vocational-Technical Education, conducted by the University of California (Berkeley). Additional undertakings include: a cooperative project with the New Jersey Police Training Commission to develop new instructional techniques and media in police training; research in basic educational skills at the Newark Manpower Training Skills Center; and direction of the development of a master plan for vocational-technical education in New Jersey.

The Occupational Education Pilot Projects referred to in another section of this publication are part of the developmental function of this Branch. During the past two years, more than 350 pilot projects, involving local high schools, vocational-technical schools and several colleges, both public and private, have been initiated.

Plans for the future include continued stimulation and coordination of occupational research, development of information acquisition and dissemination systems, and concurrently, the development of research and improved instructional materials relative to occupational curricula.

THE TECHNOLOGY FOR CHILDREN PROJECT

An experimental two-year project was started in 1966 in nine New Jersey elementary schools. It was financed in part by a $163,000 Ford Foundation grant to the State Department of Education. The Technology for Children Project, as it is called, is the first of its kind in the Nation. The project will help teachers to combine technical activities with regular academic lessons in an attempt to help children learn and understand their regular subjects better while developing an appreciation of the role of technology in our society.

Elementary pupils will be introduced to technical concepts such as design, instrumentation, the uses of tools, and properties of materials. They will be shown first-hand, from the time they enter school, how technology when applied to subjects they regularly study is used in the world around them. Using tools and materials, the children may build a sun dial, print their own stories, or construct small rockets. They may conduct experiments in electricity, refrigeration, or papermaking. Field trips to acquaint pupils with different occupational areas and related concepts are also included. Telephone repairmen, carpenters and others are asked to explain their work and give demonstrations; these experiences are then related to the children's other studies.

If successful, the program will be extended to other schools in the State.

PRIVATE BUSINESS SCHOOLS

Private business schools, proprietary profit-making institutions, emphasize instruction in secretarial practice and accounting or the development of skills in the expanding area of business data processing. They have as their objective providing the labor market with skilled workers for office positions. In the 60 state-approved schools, instruction is provided year-round, day and/or evening, in the areas of accounting and bookkeeping, business administration, data processing, computer programming, general business, office machines, office practice, stenography and typewriting.

The schools are located throughout New Jersey but the majority are located in the Newark metropolitan area.

The most recent enrollment figures available, those reported in 1966, indicate an almost equal distribution of full-time and part-time as well as male and female students. These 6,000 students consist primarily of recent high school graduates, adults returning to school for retraining, and veterans eligible under the new G. I. Bill.

Situated in the center of the Washington-Boston megalopolis and serving such metropolitan centers as Philadelphia, Camden, Newark, and New Yory City, New Jersey is in a key geographic position to supply the labor market with office workers of all types.

Private business schools will continue to both grow in number and to expand their offerings. Related to this is the necessary constant up-grading of curricula and instructional equipment to meet the ever-changing demands of business and industry. The labor demand for more office workers is increasing and these demands cannot be met by the public schools alone. Further, the private schools assist in the development of additional essential skills and afford students with an opportunity to develop poise and personality as well as general maturity.

It is projected that within the next decade, there will be more than 120 institutions serving nearly 14,000 students and providing employment for approximately 850 teachers.

A FIRST IN THE UNITED STATES . . .

The Marie H. Katzenbach School for the Deaf at West Trenton is the site of a particularly unique vocational program in Visual Communications Technology (the first such program in the United States for handicapped youth, grades 11–14).

Visual Communications Technology, in essence, is an enriched program approach to graphic arts education.

Previously, the Marie H. Katzenbach School had a graphic arts program characterized by moderate equipment, skilled instructors, and an effective but more limited program. Traditionally, its graduates enjoyed 100% employment upon graduation; however, many were underemployed considering their talents, interests and desires.

Through the new, enriched program, emphasis is on increased course offerings which give added depth to the vocational area. More boys are enrolled than previously and girls are also included in the program.

As a result of the new program:

Related academic instructional offerings have been increased.

Graphic arts facilities and media, including motion pictures, slides, film strips, and overhead transparency production, have been expanded.

Related vocational programs in basic mechanical drafting and electronic and architectural drafting have been strengthened.

The scope of Communicative Art and Design, featuring commercial and industrial displays as well as layout and design, and photographically executed silk screening, has been broadened.

The instructional staff has been expanded. Teaching assistants and student teachers through the Industrial Education and Technology Department of Trenton State College work with the project, and consultant services of the College's professional staff are made available.

New processes of cold-type composition are being taught.

The latest photographic equipment has been installed.

SOME NEW JERSEY FIRSTS IN THE NATION

There are many developments in the field of Vocational Education which were accomplished during the last two years that established a national record for the State. Among these achievements, are the following:

The nation's packaging industry has helped to establish a facility for training packaging industry mechanics.

State Workshop Conference for Master Planning in Vocational-Technical Education.

Technology for Children Project (K through 6) funded by the Ford Foundation.

Creation of a Center for Occupational Education at Jersey City State College in cooperation with the Western Electric Corp.

First State in the United States to have parochial high school Distributive Education programs.

First New Jersey student elected President to the National Future Homemakers Association.

Establishment of Public Information Unit cosponsored by a private college and a Department of Education.

Registered Nurse Refresher Training Program (under MDT).

A Governors Symposium on Education and Training for Employment emphasizing coordination and cooperation among public and private agencies.

FINANCES AND STATISTICS

The importance of vocational education to our country is evidenced by the fact that financial aid in substantially increasing amounts is being provided by national, state and local governments. Federal aid has furnished an impetus through a succession of Acts, probably the best known of which are the following:

Act	*Year adopted*
First Morrill Act	1862
Second Morrill Act	1890
Smith-Hughes Act	1917
George-Deen Act	1936
George-Barden Act	1946
The Vocational Education Act	1963

Through consolidation and amendments, Federal funds are now provided to the States through the Smith-Hughes Act, the George-Barden Act, and the Vocational Education Act of 1963. (Funds under MDTA, totaling nearly $25 million for the last two years, are also administered for the State by the Division of Vocational Education.) Funds currently (1966/67) allotted to New Jersey under these Acts are the following amounts:

Act:	
Smith-Hughes	$201,903
George-Barden	876,457
Vocational Education Act of 1963 (Includes Vocational Work-Study Funds)	5,658,707
Total	6,737,067

These Federal funds must be matched with State and/or local funds at a minimum of a dollar-to-dollar ratio. The following table shows expenditures for vocational education in New Jersey over a period of five years:

	Federal	State	Local	Total
1961–62	$1,094,543	$1,450,970	$2,141,927	$4,687,440
1962–63	1,185,865	1,407,178	2,436,013	5,029,056
1963–64	1,133,264	1,593,200	2,792,386	5,518,850
1964–65	4,229,140	3,581,982	4,821,319	12,632,441
1965–66	6,190,532	5,731,221	7,377,023	19,298,776

Note: The Finance and Statistics Branch of the Division of Vocational Education shares the responsibility for the proper accounting and statewide distribution of all the Federal funds and a portion of the State funds. In addition, statistical records related to finances, programs and personnel are maintained.

Dr. **Worthington**. Thank you for this opportunity to express my support and enthusiasm for the continuation and expansion of research in vocational education under section 4(c) of the Vocational Education Act of 1963.

Mr. **Pucinski**. Thank you very much.

We have a vote on the floor. We will recess at this time and reconvene at 3:15.

(Whereupon, at 2:45 a recess was taken until 3:15.)

Mr. **Meeds**. The committee will come to order. We will continue with Dr. Wilsey.

Dr. **Wilsey**. Much has been written and said in recent years about the growing need for health service workers and about the shortages of individuals entering the field and the limited education and training opportunities available.

The 1964 report of the President's Commission on Heart Disease. Cancer, and Stroke notes most pointedly that "one of the ironies of our time is the existence of manpower shortages across the entire range of health occupations in a time characterized by manpower surpluses.

"Finding productive work for the young, the retired, the handicapped, the technologically displaced worker is a major challenge of the day. Yet the health disciplines exist as an island of scarcity in a sea of plenty."

Numerous public and private studies have highlighted this need for manpower and shortages of preparation opportunities. For example, the proceedings of the 1966 Department of Labor—Department of Health, Education, and Welfare conference on job development and training for workers in health services conclude:

> That the unemployed and underemployed constitute a potential source of manpower for entry jobs in the health service industry.
>
> That training programs for health and related service workers must be expanded.
>
> That research and demonstration programs in the health occupations are needed.
>
> That Federal resources for training and related manpower programs need to be utilized more extensively for programs in the health field.

The report on "Planning for Medical Progress Through Education" prepared by a special committee cites the need for increasing numbers of health personnel as one of the major trends of our time and notes that:

> The need for persons trained in related health fields, to work as members of the team under the leadership and the coordination of the physician, is growing even more rapidly than the need for physicians.
>
> Larger numbers of persons will need to be prepared—and prepared more fully—to work with the physician in years ahead to provide the health care needed. Well-trained persons have long been used under the physician's leadership to provide needed care and augment the physician's skills, time, and capabilities.
>
> The spectrum of skills now in use is broad. It seems certain that it will become progressively broader. It seems equally certain that more persons with specialized skills will need to be trained to buttress the physician—lead team and compensate for the fact that fewer physicians will be available than might be desirable.

To these observations I would like to add some of my own—as an individual and as a professional consultant.

First, as an individual, I would like to note that as a trustee of a large voluntary hospital in the Midwest, I find that the most pressing problems we face in trying to provide high quality health care to the people of our community are, the rapidly increasing shortages of trained personnel at all skill levels; the rapid turnover of employees; and rising labor costs.

As a citizen, I find it disturbing that our society is opening employment opportunities to minority groups that have been denied them in past decades but is not providing them with the training opportunities they need to qualify for the jobs now open to them. This must create a great sense of frustration and dissatisfaction.

Second, as a professional consultant, I would like to note that, existing programs for training health service workers at the high school and post-high-school level are neither providing students with training opportunities they want nor providing the number of trained workers needed to fill vacant positions in the State.

A significant number of 1966 Indiana high school seniors—5.3 percent to be exact—indicated they would have taken training for health services careers if this training had been available in their high schools.

An even larger number of last year's high school seniors—7.03 percent—would have gone on to take training for health services occupations if these programs had been available in their communities.

The Indiana study and a 1966 study in Texas—and this is probably typical of other States as well—showed that: Professional and technical training and education opportunities are not evenly distributed in relation to population. This causes an unequal access to training opportunities and contributes to uneven distribution of trained health manpower. Metropolitan areas are significantly better supplied with education and training opportunities for health workers than are smaller cities.

An earlier study in our newest State—Hawaii—led us to the conclusion that minority population groups may have good access to college or university or to unskilled employment but they may have more limited access to vocational and technical training. Too often they are not counseled to enter training for the health occupations.

There are actions that can be taken at the State and local level to bridge the gap between supply and demand for health service workers.

The need is for—

(1) Study of requirements, students and employee interests and aspirations, training resources, and utilization of existing resources.

(2) Research to determine how needs can best be met.

(3) Pilot installations of new approaches to training and utilization that will demonstrate their effectiveness.

This need can be met if local interest and initiative can be supported with Federal resources.

It has been our privilege to participate in the first phase of one such community centered, federally aided approach.

In 1966, the Indianapolis Hospital Development Association, Inc., with our professional assistance, made a preliminary review of the feasibility of a systematic study of manpower requirements and education and training programs for selected health occupations.

This preliminary study was concerned primarily with the planning region center in Indianapolis. Thus study, however, considered the region as one sufficiently typical that results of the full study could be of substantial benefit to other communities of similar size across the Nation.

During the preliminary study the existence of national and local shortages of health manpower and factors contributing to the shortages were confirmed.

Several suggestions for meeting health manpower needs in the Indianapolis area were made by organizations and individuals who contributed to the study. It was suggested that:

The total pool of health workers should be expanded by increasing and improving recruitment efforts and by attracting and retaining higher quality personnel.

Compensation levels for health occupations should be raised.

The productivity and quality of workers in the health field should be increased through improved utilization, education, in-service training, incentives, and supervision.

Flexibility in the use of health manpower should be increased by actively encouraging revisions of restrictive licensing requirements, other laws, and standards of various professional certifying bodies.

The extent of undertraining or overtraining should be identified by comparing actual work requirements for jobs in the health field with existing educational or training objectives and requirements.

Vertical mobility opportunities within the health system should be developed for personnel who may be qualified to make "career ladder" advances.

The use of human and financial resources should be optimized through improved coordination and development of educational or training programs among educational and service-oriented organizations.

The general conclusions growing out of the feasibility study conducted by the Indianapolis Hospital Development Association, Inc., were that:

There is serious concern about meeting health manpower needs in the Indianapolis area.

Health service and education leaders in Indianapolis are cognizant of the need to develop additional health manpower resources. They are interested, willing, and enthusiastic about taking whatever action is required to insure adequate numbers of health personnel in the future.

Several national leaders in the health field are also responding positively to the concept of the proposed comprehensive study and endorsed further work on it.

The comprehensive study is desirable and feasible and the plan of approach can be executed successfully in the Indianapolis area.

Successful execution of a comprehensive study of health manpower needs in the Indianapolis area should result in the development of a model approach to health manpower planning which could be applied in other cities of comparable size.

There are more than 40 cities in the population range of 500,000 to 1,500,000 which could apply the Indianapolis approach to their health manpower planning efforts.

It was the conclusion of the Indianapolis Hospital Development Association, Inc., and our firm that "A comprehensive, systematic study of health manpower requirements, utilization, and education and training programs for selected health occupations should be undertaken in the Indianapolis metropolitan area."

A plan for conducting the comprehensive study has been prepared.

The comprehensive study probably will require from 5 to 6 years of research, experimentation, and pilot installation testing of approaches developed.

The study should yield major benefits to the Indianapolis area and provide a demonstration of approaches to solving health manpower shortages that could be applied in other communities.

The major objectives of the full study planned by the Indianapolis Hospital Development Association are:

To relate demand and need for health services to health manpower requirements, utilization, and education and training.

To identify present health personnel utilization by systematically studying the roles and responsibilities of selected existing health professions and occupations.

To identify new, restructured, or unchanged selected health occupations according to the most effective grouping and assignment of tasks and the minimum level of knowledge and skill required to perform them.

To identify opportunities for applying existing knowledge and technological advances in the provision of needed health services.

To promote the team approach to health care and service through systematic integration and coordination of functional assignments with educational and training programs for selected health occupations and professions.

To translate the recommended functional assignments and educational and training of selected health occupations into pilot programs which can be analyzed and modified as necessary.

To provide opportunities for "career ladder" advances within health occupational fields, so that qualified persons may progress professionally in an orderly fashion.

To achieve effective coordination of health planning and delivery of comprehensive health services through the appropriate involvement of health personnel, laymen, and consumers of services.

The proposed comprehensive study will be conducted by the Hospital Development Association with the cooperation of many community organizations, institutions, and individuals and with the aid of staff and consultants.

During the project, those responsible will:

Develop detailed work plan and schedule for the comprehensive study.

Determine present and project future demand for health services in the Indianapolis area.

Determine the present and estimated future supply of health personnel in the Indianapolis area.

Project manpower needs for the area based on existing occupational classifications and compare with expected output of educational and training programs.

Analyze systematically tasks performed by selected health personnel; group tasks according to the nature of work and the level of knowledge and skill required to perform them.

Identify new, restructured, and unchanged selected health occupations.

Identify and apply existing technological advances in education to improve education and training programs for health personnel.

Prepare comprehensive long-range plan for the education and training of health personnel needed in the Indianapolis area.

Establish and conduct pilot educational and training programs for selected health occupations.

Evaluate results, and disseminate findings.

This approach should make it possible to develop, test, and install approaches that will help alleviate our vital health manpower shortage, and at the same time, open employment opportunities through training and education programs that are not now available.

It is my recommendation—and hope—as an individual, and as a consultant that the Congress will see fit to continue and expand support for the kinds of programs made possible under the Vocational Education Act of 1963.

Thank you very much.

Mr. MEEDS Could we hear from you now, Dr. Cook?

Dr. COOK. Back in 1936–38 when I was in high school, the traditional office occupation program was 2 years of typing, 2 years of shorthand, 2 years of bookkeeping and other assorted subjects.

Today in 1967 the curriculum is basically the same. I would like to report upon a curriculum demonstration project which is attempting to take a look at the traditional preparation for several of these occupational fields, to explain very briefly the highlights of what we are attempting to do in the city of Detroit working cooperatively with the Detroit Public Schools to prepare boys and girls to enter traditional occupational areas such as the office and retailing occupations.

We know, for example, that approximately one-third of all of the high school students in our area are enrolled in some form of office or retailing occupation. We further know, as of 1963, 53 percent of all of the graduates of that year entered the office or retailing field immediately upon leaving high school.

As a result of the basic study that was done in cooperation with the Detroit schools out of 4(c) funds we have developed what we call the senior intensified program.

Basically, the senior intensified program is a new curriculum approach to prepare workers in several of the traditional occupational fields and one emerging occupation, i.e., data processing in their senior year.

We are of the opinion that we can teach all of the vocational skills, the knowledge needed in that one particular year needed for entry into these jobs.

Most schools, for example, now require somewhere around 1,800 class periods to prepare a stenographic employee. We believe that it can be done in 400 to 600 class periods. Since there has been basically no change in the curriculum that I am discussing in the past three decades, we have found it necessary to prepare materials to work on an in-service basis with the cooperating teachers in the 11 public schools in Detroit, to help them in working with us to develop the necessary materials for the program.

This is an innovative approach, at least to the extent that we have tried to integrate the materials to work very intensively with unselected students, many of whom come from some of the disadvantaged schools in the inner city of Detroit.

The major differences, as we see them, between the senior intensified program and the Office and Retailing Occupations as compared with the traditional program is that, first of all, no previous high school business courses are required.

Secondly, all of the vocational preparation as opposed to the general education, english, math, et cetera, is given exclusively in the senior year.

Third, we know as Dr. Venn has emphasized that these students have some work experience along with their vocational preparation and we have developed a one-semester cooperative program as compared to the two-semester cooperative program.

I think most important of all is that this program does make it feasible for an individual who has been a general student or a college prep student or a dropout from some other vocational program in their senior year within a modest amount of time to secure the skills needed for entering into the kind of jobs that operate or exist in the Detroit metropolitan area.

At the current time we have 11 programs in 12 schools and next year we will have 18 programs in 15 schools. The one that I am most excited about at this moment is Northern High School in Detroit, which had some student trouble last spring because of inadequate curriculum at least as far as they are concerned, we are going to have all five of our senior intensified programs in this inner-city school system.

Mr. MEEDS. Dr. Howard?

Dr. HOWARD. The Vocational and Technical Education Act of 1963 sets forth two related objectives. The first was to provide youths and adults of all ages and backgrounds with the opportunity to acquire usable skills, the second was the more difficult task of assisting people to develop the capacity to continue to develop.

Since 1963 research and development have expanded our ability to teach skills but needed now is much greater emphasis upon disseminating of knowledge on how to learn.

Perhaps it is because our study at Wisconsin has been expanding opportunities for nonwhites in white-collar jobs that we have placed people development on an equal par with skill acquisition.

Qualities of openness and flexibility characterize the set for learning. Motivation is rooted in a positive view of one's self and confidence in the future.

We have addressed ourselves to employment barriers that confront the nonwhite population. I hardly need to remind this group that this is a national problem of alarming dimension.

Though nonwhites make up 11 percent of the national work force, they comprise more than 20 percent of the unemployed and 25 percent of the long-term jobless.

One out of three nonwhite teenagers between 14 and 19 is unemployed. Since 1948 nonwhite unemployment has grown in virtually all ages and classifications.

Moreover, in the last 15 years nonwhites have dropped out of the labor force at a rate twice that of whites. Despite the fact that the median education of nonwhite workers has advanced in the last decade from 7.6 to 9.6 years of schooling, the economic gap between Negroes and whites in America has widened.

Amid unexampled prosperity Negroes experience unemployment rates twice those of whites and in urban centers joblessness resembles the trying experience of the 1930's.

Daniel Moynihan in reviewing these facts commented: "Surely it is possible now for responsible persons in private and public life to recognize that we are presiding over a catastrophe."

As a group, the Negro is not gaining sufficient capacity to continue developing.

This rising national problem has not gone unheeded. The President's Committee on Equal Employment Opportunity, plans for progress, skills banks, and the Equal Employment Opportunity Commission are important private and public responses.

Never before has there been so much interest in helping minority groups and especially Negroes, to get jobs and to secure these gains.

Most of our attention has been focused upon the problem of overt job discrimination by employers. The Federal Government increasingly has required nondiscriminatory compliance reports from all firms having Federal contracts, and other employers on their own have promoted self-regulation through declaring themselves equal employment opportunity firms.

These efforts have brought dramatic but isolated gains. Progress, however, has not been sufficient to arrest the comparative disadvantage that nonwhite workers face. We are slowly becoming aware that overt discrimination by employers may not be the major problem and hence our work to overcome employer discrimination may not be an adequate answer.

The need to find more effective ways for the Negro to move on his own.

The research we have conducted has been based on the hypothesis that pledges of nondiscrimination do not necessarily lead to significant hirings.

The reasons for the lack of success, we suggest, is to be found in part in the cultural differences that separate the unemployed nonwhites from the workers on the job. The unemployed or underemployed Negro speaks one language, the worker another; the nonwhite has one set of values and patterns of behavior and the successful employee a different set.

These little understood differences lead to unarticulated criteria which make getting hired more difficult: they project barriers to Negroes which make advancement all but impossible.

There is a two-sided barrier. Negroes do not know the world of work and consequently are unable to properly prepare themselves, and because employers do not know the world of the ghetto they are unable to recognize many potential employees of promise.

These cultural differences transcend skill requirements and center primarily in behavior patterns. We have sought to demonstrate that Negroes were missing employment opportunities in part because fellow workers, not just employers, found them socially unfamiliar and hence unacceptable.

We selected the field of clerical jobs to demonstrate this hypothesis. We sorted out for study a group of employers who had demonstrated their commitment to fair employment practices. The standard metropolitan area we examined has an exceedingly tight labor market where employers are eagerly looking for new employees for office work.

The white-collar force in these firms provided an excellent occupational area for study. By 1975 the Labor Department predicts a 33-percent rise in white-collar jobs; they will comprise nearly one-half of total employment.

Surely, if nonwhites are to gain employment, it must be reflected in substantial gains in the clerical field.

We also expected that the patterns of cultural barriers to employment would appear. Clerical workers in these firms are often hired on the basis of indistinct qualifications, applicants come looking for work in large numbers and the jobs they fill frequently involve intense human contact with other workers.

In clerical jobs, perhaps more than any others, the worker must gain acceptance not only at the employment desk but also with his fellow employees.

We expected to find that the culture of the white-collar worker, his values and expectations, would project high barriers to Negroes. Our expectations have been fully documented.

Mr. QUIE. Dr. Howard, could you put the microphone in front of you? Even though you are speaking loud enough the acoustics are so terrible in this room that every once in a while a word is lost and we would like to hear all that you have to say.

Dr. HOWARD. Our research has followed basically three lines. We have first attempted to gather evidence on what it is like to be a clerical worker at the entry level.

We wanted to sort out the styles of behavior not from the literature but as it is projected by the workers themselves.

Secondly, we wanted to isolate the patterns of behavior that are common to the young Negro in the ghetto, the way he sees the world and work as a part of it.

Finally, we have focused upon the public schools to ascertain how they are preparing the urban Negro to become successfully employed as white-collar workers.

We know very little about these important but complex patterns of human behavior in our country. Literature on the culture of poverty is scarce, reflective of the gap that exists between the very poor who live in it and the middle class who do research about it.

Fortunately, some data is beginning to emerge as a result of the work of Oscar Lewis, S. M. Miller, Robert Coles, Thomas Pettigrew, Martin Deutsch, Kenneth Clark, and others. We know even less about the life of the white-collar worker although the work of C. Wright Mills does provide some guidelines.

We hoped that once our knowledge of the urban ghetto Negro increased along with our knowledge of the world of white-collar work that we could then turn to the public schools to assess their effectiveness in moving the young Negro from one cultural setting to another.

We have not been surprised to learn, even at this early stage, that we are at the forefront of knowledge.

The use of field participant observers to study workers at work at the beginning clerical jobs is a novel undertaking. Little research has been done on the bottom clerical ranks.

Blue-collar work receives continuing attention. The fact of unionization has meant blue-collar workers have come to have a distinct identity.

Management, confronted with contract negotiations extends itself to know this segment of work. Much is also known about middle- and upper-management levels as firms are continually looking at their top-echelon employees.

White-collar workers, in sharp contrast are unorganized and are too close to management to be seen. Frequently no mechanism exists for seeing these workers as a group. Yet few job areas are changing more rapidly. The effects of large inroads by scientific management has been a steady downgrading of the tasks white-collar workers perform.

As the fruits of their efforts become mere inputs into even larger systems, decisions shift from their desks to the correlations of computers.

Many white-collar jobs are highly routinized and meaningless for those who perform them. Many more of these jobs are destined for a similar degrading fate. In this process the culture of the white-collar workers has been forged.

In our studies of individual firms in our area a few outlines of the white-collar culture have emerged. White-collar workers largely have accepted the dull jobs, low pay, and limited fringe benefits that is their lot.

Promotions are commonly sought, in the limited cases where they are possible, mainly through moving from one job to another. The satisfactions that are derived come principally from the social relations that they develop at work apart from the tasks they perform.

As the work-related tasks have diminished in importance, these social patterns and the values that are related to them have grown.

Barriers to nonwhites have loomed in this context. The social setting has largely become the job. Since jobs come from the inside of firms, they bear the imprint of the workers already employed. The characteristics of a desirable worker are increasingly his capacity to get along.

Recruitment is primarily based upon contacts which stem from those already employed. The workers who are unacceptable to their peers have little chance of achieving the needed personal satisfactions and are much less likely to be given more desirable responsibilities.

Directives by management toward fair employment are unheard of in this context. Statement of fair employment policy, in the absence of concrete successes, generate employee confusion and breed resistance. The occasional Negro who is hired seldom becomes an "in" employee and almost invariably does not remain.

These barriers erected inside firms have apparently dissipated efforts by management in our study area to expand the Negro white-collar work force. Of 80 firms so far studied fewer than 1 percent of the white-collar force are Negro.

The usual reason given by management has been that no qualified Negroes could be found. Yet our participant observers have identified vast areas of white-collar work where skill requirements are minimal.

These difficulties Negroes are facing lie heavily in their inability to gain acceptance among fellow white-collar workers.

What has emerged in our study area is apparently a national problem as the 1-percent clerical work force rate approximates the experience elsewhere.

Yet when a firm becomes predominantly Negro in its social setting then Negro white-collar workers achieve positions in large numbers.

There are few more exciting examples of these gains than right here in government offices in Washington, D.C.

Our studies of Negro high school graduates reveal a second set of obstacles arising from the culture of the ghetto. The life of the young Negro in our northern city does not include many experiences beyond his own immediate neighborhood.

He does not belong to many community organizations. He knows little firsthand knowledge about banks, hospitals, dapartment stores, or museums.

The public institutions he knows best are public welfare, the Army, and the police department. Ghetto life means living among high levels of unemployment and frustration. Negro high school graduates talk about middle-class social standards but seldom does he see them lived out.

Consensual marriage, for example, is common alongside legitimized unions and broken homes predominate. In this setting provincialism abounds, Negro youth especially from low-income families, project a strong feeling of fatalism, helplessness, dependency, and inferiority.

This is, of course, not the whole picture that is projected from a continuing involvement with ghetto youth. One can also spot a capacity for spontaniety, a capacity to improvise, and even high aspirations even though they may appear to outsiders as unrealistic.

But the overall picture represents a range of barriers in white-collar employment. The Negro inhabitant of the ghetto does not know the world for work; he knows few white-collar workers. The problem is largely one of being restricted to the narrow experiences of his own neighborhood.

The high schools in our study attended by Negro youth have become increasingly all Negro institutions. Like most inner core city schools, they have experienced a diminution of their curriculum.

Compensatory education has replaced the college preparatory courses. Fewer than five in 100 of the graduates of these schools go on to higher education and when they do they go primarily to predominantly Negro colleges in the South.

The policies of this city's school board is to maintain the neighborhood schools which has the effect of mandating and enforcing de facto segregation.

High school students reflect little loyalty to these schools beyond the performance of their athletic teams. Absences and dropout rates are high. Academic performance is downgraded by the low expectations of teachers and the irrelevance of the curriculums.

Counseling is limited and concentrates upon department problems. Teacher turnover is high and replacements increasingly are made with Negro teachers.

All of this is widely known, but it is not generally appreciated and the negative effects that this has upon these students' subsequent employment opportunities. The schools add to an already tight pattern of cultural isolation by rejecting the Negro community on the one hand and insisting that the Negroes be educated apart from whites on the other.

In this setting, the normal preparation for white-collar work does not occur. Many high school students do not see employment opportunities through gaining more skills when jobs not requiring skills remain beyond their reach.

A recent study of these Negro high school dropouts showed that they were earning only $5 a week less than their fellow students who had remained to graduate.

These hasty observations only confirm that the life of the white-collar worker differs vastly from that of the inner core Negro. I'm sure that it comes as no surprise to you that white-collar workers are putting up resistance to Negroes joining them.

To the degree that these cultural barriers exist they are not overcome by skill training programs or customary patterns of cultural enrichment.

The primary needs are for training not in isolation but among white-collar workers where a different pattern of attitudes and values are considered normal. The content of such experiences is best achieved through building into the curriculum significant and continuing contact with the life styles of white-collar workers not only those on the job but many others in their communities.

Equally important is the need for managers, supervisors, and white-collar workers to become more accustomed to the Negro as a person rather than a statistic.

This mutual accommodation must take place in a positive setting. From all available evidence it is not likely that housing patterns will change enough to permit this to naturally happen.

Any vocational training program that does not include a substantial increase in these cross-cultural experiences is not likely to have much payoff.

The outlines of demonstration and dissemination projects of the sort anticipated in these amendments emerges in this context. Needed is a much larger investment in comparative research about these two cultures.

This data, we think, should be fed directly into high school courses.

Considerable emphasis must be placed on helping the Negro youth to better understand who he is, his strengths as well as his weaknesses.

We will make little progress so long as we persist in viewing the Negro primarily in negative terms. This call is for the inclusion of anthropological insights derived from the immediate community into the regular vocational training.

The conceptions of Clyde Kluckholn, Gordon Alport, and Talcott Parsons provide the broad outlines. To this must be added experiences in cooperative education which place the Negro high school student in contact with those with whom he must subsequently work.

On this foundation we can begin to make progress in the direction of the aims of the Vocational and Technical Education Act that training will be available which makes the difference.

Employees, at least in our metropolitan area, have long since made their commitment to fair employment. In our demonstration efforts they have widely applauded this new opportunity.

At hand are the behavioral sciences findings of two cultures, two Americas. Needed now are demonstrated projects which will begin to overcome cultural barriers and translate our intentions into employment gains.

This kind of an innovation will not be easy, but it can be mounted.

Thank you.

Mr. MEEDS. I think that completes the testimony of the panel.

If I may, I would like to address a very general question to all of you gentlemen and since it is a very general question, I will accept very general answers.

I am going to ask you what you feel are the four most emergent needs in the field of vocational technical education. I will start with you, Mr. Bushnell.

Mr. BUSHNELL. That is a very searching question which you raise, Mr. Meeds.

I certainly respond in the first instance by stating that in my opinion there is a need to relate vocational education that has been traditionally taught more effectively to some of the basic learning skills, developing in other words the capability of reading, writing, and arithmetic along with the manipulative skills that make a man qualified for certain kinds of jobs.

What we are seeing is a very dramatic shift away from the production-oriented occupations into the service occupations and in the service occupations you need the writing skills, the communication skills, the social skills in getting along and being able to relate effectively to a customer or to one's peers as Dr. Howard has so dramatically expressed it.

I think it is here we need a good deal more study and research.

A second concern that I see from the perspective of a research program is the need to modify organizational patterns within the local school districts and within the State departments of education in such a fashion that they can respond effectively to emerging opportunities but to do it 3 or 4 years in advance of those opportunities actually opening up.

This suggests that there be a better linkage between the State departments of labor, the local employment services offices, and local schools to insure that job information is brought into the schools and training is instrumented that will lead students to qualify for emerging occupational areas.

Third, a major concern, it seems to me, is that we are too often asking students to decide at an early age level what they want to be and not allowing them to go forward with their education, say, through high school before making such commitments. Not giving them the right kind of educational fare will also hinder them from making good choices.

If they want to go to college, they ought to be able to do so. If they want to go to a community college, they should be able to do that, and if they want to continue with work, they should be allowed to do that.

To do this, they will need a broad base of learning skills.

Mr. MEEDS. Are you saying you feel technical vocational educational possibilities should be available but not pressed upon a student at an early age?

Mr. BUSHNELL. Yes, I think that would be the implication of my remark. I might add, however, that there is a great deal of relevance for the student who does not see himself going on to college, relevance of preparing for an occupation.

We know this has a lot of interest for him, will even hold him in school; whereas if he were only getting academic preparatory programs, he would drop out.

We would like to use that motivational power of occupation to develop the skills to make him a capable, adequate citizen and employee.

Mr. PUCINSKI. We have seen some programs in which basic academic education was carried on through what might be a drafting course or something like this, where a person would be taught basic mathematics in this way.

They have been tremendously successful with the young people who really didn't think they wanted to learn mathematics at all but found out after they got involved in drafting that they did want to learn mathematics; that it was very stimulating.

This combination has been one of the things that I have been told is holding kids in school a lot of instances.

Mr. BUSHNELL. What we would like to attempt now is to generalize that type of experience for many students who either think they are college bound and then find belatedly that they cannot qualify or if they are in college they perhaps drop out. Then they ought to have this opportunity to get something that is more relevant to their needs, both for employment and as citizens, that will hold their interest in the way that you have described.

Mr. SCHEUER. Don't you also think if you can give them a continuing mix of education and job training that you might bring them up by easy stages to the point where they feel that college is the next natural and comfortable step, whereas if you would ask them 5 years before if their horizons encompass going to college they might step back in shock and dismay that they could possibly be college material?

Not only are you giving them something that instead of college may be more relevant to them now, but isn't it also true that you are preparing them for the day not too many years hence when college may be relevant?

Dr. **Howard.** I could not agree more. I think it is the natural kind of development one would expect to occur. We are in a very large movement; not education for life but throughout life.

In the education of youngsters this would come very naturally. I would like to add one more point and this is the whole systematic overview of the whole problem. The first instance is to find out what the inputs are, where is the youngster, defining clearly what the goals are and then utilizing the best educational techniques in moving from one State to another.

I think that kind of systems view along with the microcosm is the kind of approach required.

Mr. **Scheuer.** Isn't it also true as the situation improves in fluidity and multiple options his goals change?

Mr. **Bushnell.** I think one of the appeals and greatest successes of vocational education is its ability to relate to individual students. The coaching that goes on in the shop, for example, is an excellent model to work from for all education.

The relationship that is developed between a shop instructor and student is frequently much closer than you would find in a math or social science class.

Mr. **Meeds.** Do any of the others have any comments on the emergent needs of vocational education?

I noticed you addressed yourself to the field of research and curriculum entirely, Mr. Bushnell, and perhaps this is the type of answer I will get out of all of you since that is your primary function.

Dr. **Worthington.** It seems to me in the public schools we have to make it possible for the young person to explore the world of work and explore the man-made environment. Our schools are typically emphasizing the natural environment and ignoring the man-made world and technology, so boys and girls early in their career do not have the capability to make an intelligent choice when they reach the age of choice.

So, I would hope we could first expand our educational occupational guidance in the vocational programs.

As I understand the program presented this morning by Mr. Venn, it would be a great step forward.

Mr. **Meeds.** What about guidelines?

Dr. **Worthington.** They are badly needed. We need to help these kids whether they are going to be doctors, dentists, et cetera, to understand the dignity of work. Our country is built on skilled work. Everybody doesn't have to go to college.

Being a good plumber is just as good as being a good philosopher, as John Gardner said.

Mr. **Meeds.** Would this come under the heading of improving the image of technical vocational education?

Dr. **Worthington.** Definitely.

Mr. **Meeds.** Would you not all agree this is the most important thing if not one of the most important things that must be done in this field?

Dr. **Worthington.** That is definitely right.

Mr. **Quie.** Let me ask first, Mr. Howard, are you saying if title II were passed we would then have a better opportunity for Negroes to secure vocational education and assimilation into the white community?

Dr. HOWARD. Yes, and I think mutual accommodation in the process. It would relate together Negroes and whites in doing together some task. It is reminiscent of the post-Civil War days when the North and South were bound together again by building the West.

It is precisely in this dignity-of-work opportunity that Negroes and whites can come to understand each other.

Mr. QUIE. Is it only possible for a Negro to secure an adequate education by sitting beside a white student?

Dr. HOWARD. No, I would not say that is the only way because obviously, there are those of us who are products of an educational system where we did not sit side by side with whites and some of the education has been reasonably respectable, I think, but I think there are many human goals that are unachievable any other way.

The people cannot really come to love one another unless they know one another. They can only liberate themselves from isolation if they get to know and love one another.

It means you must affirm your fellow man, so it is difficult to think of real education when it is forced—I mean isolated education.

Mr. QUIE. There is little wonder that in the school I attended where everybody's parents and grandparents came from Norway, that we didn't think we lacked love and concern for Germans or Italians.

I will admit, however, that we didn't know Negroes at all because that was only something we read about in books. We didn't even see them in towns. I sometimes wonder if we need to have the force—if the forced mix is the most important thing, or is a better quality of education more important?

Dr. HOWARD. Certainly, with all of the contributions that the State of Minnesota has made—I am thinking of all of those colleges around Carlton and the University of Minnesota and the programs that they have with southern institutions and the background of that spirit of Minnesota—really leads me to believe that certainly forced education or forced linkage is not desirable, and better education certainly is desirable, but as James Almonds pointed out, education—quality education—and integrated education are inseparable.

Mr. QUIE. I know you and many others have said it and Commissioner Howe has said it, but I know a number of the Negro race are quite offended when those statements are made.

I notice that some of them are talking about if you have to have it separate, be separate but be superior.

Let me ask then, in title II, how can this be brought about? I understand one of the differences in title II is the fact that you can contract with private profitmaking institutions.

I don't see where this is going to bring about a better interrelation between the races. Perhaps the only thing it gives the Commissioner is more authority.

Is this really what you are asking for? Does the Commissioner of Education really have more authority than you will find in the States?

Dr. HOWARD. I think it gives resources to businessmen. At least in my community they want it.

Mr. QUIE. You need some Federal money going into their hands because I imagine you have an interrelatedness with private business right now, all of you, in your programs. Will it ease your task if the Commissioner can contract with them and use Federal money rather than using their own?

Dr. BUSHNELL. May I address myself to that, Mr. Quie?

Mr. QUIE. Yes, sir; please do.

Dr. BUSHNELL. While it is true we can help bring about the better realization of integration and acceptance, say, of minority groups into various kinds of employment areas through helping generate the kind of graduate who will have both the entry level work skills and the attitudes and social behavior that gains some acceptance among his peers on the job, which I think is what Dr. Howard is addressing himself to, there are a number of other advantages in being able to work with profitmaking firms, particularly in vocational education.

One of the major advantages, I think, is oftentimes employers or companies who are in an advanced technology area have an expertise that is not yet penetrated into the schools.

They will be able to bring to bear their knowledge about the new skills required and in many cases they will set up their own training programs.

It is not too difficult to build on top of that training experience and translate that material into material that can be used in the public schools.

In other words, we would like to bring to bear their expertise, their knowledge about these new job skills and technologies, in the public schools and, therefore, we would like to be able to contract with them directly to make that happen.

I can think of a number of other advantages also in having this capability of directly contracting with profitmaking institutions.

Mr. QUIE. This seems to be at least an effort in giving vocational education some more tools to work with. I have some question in my mind whether it is necessary in this legislation, but at least the idea of involving and following private enterprise is good.

What do you think about the fragmentation? And I want to ask you, Dave, because you are tied in with the transferring of the work-study program over to the Department of Labor for administration instead of letting you handle this through vocational education.

As I understand, our chairman would prefer this transfer judging from the bill he wrote, but I would like to hear from the men who are not bound by administration policy.

Dr. WORTHINGTON. In New Jersey, we would be very sorry to see the vocational work-study provisions removed from the act and also the funds not being provided.

This year our schools have had to provide 25 percent of the costs and they have done so eagerly. We have asked our State budget bureau to provide the 25 percent State funds this year and they have it budgeted for us for fiscal 1968.

We hope the Federal officials will find the money we are looking for. This is a very important program and it is a difficult kind of a program as I see it than is the Neighborhood Youth Corps.

This year we have about 2,500 boys and girls working in our work-study programs in our vocational schools. These kids are doing a variety of jobs. They are doing the kinds of jobs, for example, that a teacher's aid might do in many cases, helping the teacher do routine types of tasks that the teacher should not be spending his time on, taking care of roll books, toolroom clerks in the shop, doing various kinds of work, filing, typing, related to jobs to what they are learning in their vocational skills and these funds are helping these kids to stay in school and increase their occupational competence.

We favor this type of program and hope it will continue.

Mr. QUIE. If you knew it would continue and the funds were available, do you think you could pick up 25 percent of the cost?

Dr. WORTHINGTON. Last year when we didn't have to put up the 25 percent we had 118 school districts participating. This year when we had to put up the 25 percent, 92 school districts continued to participate but we have money in our State budget for the next fiscal year.

This has been approved by our State budget bureau, who is ready to help these schools to continue the work-study program.

Dr. COOK. I would like to see the opportunity for these youngsters, for example, in this special program I was discussing for us to be able to place them in a private business so that they could have the experience for a relatively short period of time; that is, one semester where we would really develop a partnership with the businessman and he would not expect this kid to be a productive employee the first day on the job; through work-study programs he is more likely to give this individual the opportunity to get into the office or retail store and do the kind of job we would like to see them do in education.

Mr. QUIE. What kind of money would you need to work out a program with private industry?

I am interested in this. I think there are tremendous opportunities because the student then will have had an interest in the structure in which they are going to work. They will, very likely, not be employed in a school. Mr. Worthington spoke about this being beneficial to them.

What kind of money do you need to bring this about other than an individual who has the responsibility of trying to match up your students with the private jobs?

Dr. COOK. We would need the money and I presume some support for the businessman himself to find it economically feasible for him to take an employee or prospective employee and put him in a job situation for a period of time where he is also going to have one of his regular employees working with the individual.

Mr. QUIE. Could you be specific on the amount of money it would take? Have you had any experience with that? We know the minimum wage is $1.40 and it will go up to $1.60 in another year.

Dr. COOK. In the State of Michigan, it is possible for an individual who is in school and in a training program under our labor laws for them to deviate from the minimum wage which is about 25 percent less than the current minimum wage.

Mr. QUIE. What would you think if you had the opportunity to subsidize 25 percent of the student's wage in private employment while he was actually in training?

Dr. COOK. I would think any amount of subsidy would ease the input of students into the work force.

Mr. SCHEUER. I want to say to the entire panel how much I have enjoyed all of your testimony. I have a couple of very general questions that I would like to pose for any of you to volunteer answers.

On February 7 of this year, Secretary Wirtz appeared before the Joint Economic Committee on the Senate side and through a decimation of those in attendance, because of a Senate rollcall, I ended up sitting in the chair presiding.

Secretary Wirtz and I had a colloquy of the cost to the community of these training programs. We specifically were discussing the kind of public service program you were discussing, Dr. Bushnell, but in any event, he testified that the cost of these programs would be returned to the community in the first 2 years following the end of the training from savings in welfare expenditures and in the first 4 years from the income taxes which the individual would pay.

In other words, at the end of 4 years, the money would be returned twice over in savings in welfare and once through increased taxes taken by the Federal Government, so there would be a three-time return of the Federal, State, and local investment in our human resources in a 4-year period of time.

Do you have any questions at all from the point of view of the economy, the economic impact of this program on our economy? From the very hard-nosed point of view of fiscal analysis, cost-benefit analysis, the income statement, balance sheet analysis, are these training programs an economic must which we cannot afford not to have?

We cannot afford the luxury of not continuing these programs.

I don't want anybody to think that this is a leading question.

Dr. BUSHNELL. I would like to try one part of your question, Mr. Scheuer. I just returned from a 2-day conference on cost-benefit analysis in vocational education.

The research evidence is the income gain that a student enjoys through having completed a vocational training program at the high school level, graduating from high school, within 10 years' time he will have earned three times the amount that it costs to give him that training so that return in itself is quite apparent, the ratio of three to one essentially.

I am not as able to respond to the savings incurred through having him successfully complete high school and thereby avoiding unemployment and welfare support.

There are economists now at work on this very question that we have supported with research grant moneys to ferret out that saving that might be realized.

Mr. SCHEUER. I would make the unanimous request, Mr. Chairman, that the cost-benefit analysis of these training programs or at least a brief synopsis of them be put in the record at this point.

Mr. PUCINSKI. There being no objection, it is so ordered.

(Analysis follows:)

COST-BENEFIT ANALYSIS OF VOCATIONAL EDUCATION: A SURVEY BY BRUCE F. DAVIE, ASSISTANT PROFESSOR OF ECONOMICS, GEORGETOWN UNIVERSITY, WASHINGTON, D.C.

A paper prepared for the Stanford Research Institute, Conference on vocational-technical education: New approaches to planning, programing, budgeting, and evaluation. Airlie House, April 10, 11, and 12, 1967.

The literature dealing with the application of cost-benefit analysis to vocational education and to training programs is widely scattered in special research reports, journal articles, conference proceedings, and unpublished papers. For the purposes of this survey the literature can be divided into two categories—theoretical-methodological and empirical. The former category is the most extensive undoubtedly because economists familiar with the use of cost-benefit analysis in other areas have, with relative ease, been able to identify the major theoretical and methodological issues involved and even reveal additional subleties whereas work in the latter category is hard, time consuming, and expensive—and hence scarce. Most of the empirical work has been directed toward the evaluation of training and retraining programs rather than secondary and post secondary vocational education.

In the first section of this paper the literature is summarized by identifying the various specific benefits and costs which have been suggested as being relevant to an analysis of vocational education. The distinction is made between the analysis from a societal viewpoint and an individual evaluation; a few comments will also be made concerning the use of cost-benefit ratios. In the second section income distribution is discussed as an important element of evaluating vocational education. Three specific attempts[1] to formally evaluate vocational education are then reviewed in some detail in light of the discussion in the first two sections. Finally some conclusions are drawn concerning the utility of cost-benefit and cost-effectiveness analysis in the evaluation and planning of vocational education at both the federal and state-local levels.

The Elements of Cost-Benefit Analysis

The major issues raised in both the theoretical-methodological and empirical literature are abbreviated and organized in Illustration I where benefits, costs, time horizon, risk, and discount rates are listed both from the societal and individual viewpoint. This division is essential as differences may well be so significant that a particular program could be judged socially desirable using cost-benefit analysis but individuals would not enroll acting in response to their own rational comparison of benefits and costs. In both cases benefits and costs have been listed, roughly, in order of importance. No attempt has been made to attribute particular ideas to individual authors. (See the attached Bibliography) Such an attribution is virtually impossible given the fragmented nature of the literature and that most authors have discussed most of these items. Some ideas of this author may even have crept in, but that too is difficult to tell.

ILLUSTRATION I

The elements of cost-benefit analysis

BENEFITS

Society

1. Additional earnings attributable to occupational educational (gross of taxes).
2. Other additional income (output) attributable to occupational education (gross of taxes).
    a. to cover costs of fringe benefits.
    b. rendering other factors of production more productive.
    c. increasing productivity of future generations as the better educated induce their progeny to become better educated.
    d. benefits of future educational programs undertaken as a result of the current programs.
3. The effects of reducing transfer payments.
    a. the additional income generated by resources released from administration of transfer programs.
    b. additional income as disincentive effects of taxes necessary to finance transfers are removed.
4. Better citizenship and reduced costs to society of bad citizenship.

Individual

1. Additional earnings attributable to occupational education (net of taxes).
2. Fringe benefits associated with additional earnings.
3. Stipends received (if any) while enrolled in occupational education program.
4. Value of the option to enter other educational programs in the future.
5. Increased psychic income.

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[1] See p. 108.

COSTS

Society	*Individual*
1. Opportunity costs (gross of taxes)	1. Opportunity costs (net of taxes).
2. Operating expenses of educational agency.	2. Loss of transfer payments.
3. Capital expenses of educational agency.	3. Tuition (if any).
4. Costs to other public agencies.	4. Out-of-pocket expenses associated with enrollment.
5. Induced reductions in income (gross of taxes). a. of workers displaced (in the absence of full employment) by program graduates. b. of family members.	5. Induced reductions in family income (net of taxes).
DISCOUNT RATE	
Social discount rate.	1. Lending rate. 2. Borrowing rate (may be an increasing function of the amount borrowed). 3. Personal rate of time preference.
CERTAINTY OF TIME	
Horizon: Infinite (if effects on future generations are to be considered).	Horizon: Lifetime.
Measurement: Some data known with certainty or based on averages derived from a large number of cases. Other data estimated.	Measurement: Most data uncertain. Possibility of risk aversion.

The discussion of the individual items listed in Illustration I can be quite brief as most of them are analyzed in Professor Stromsdorfer's paper. Two points require some additional emphasis. First, while transfer payments merely represent income redistribution from the societal viewpoint they are included in the individual evaluation of benefits and costs. If, as a result of a vocational education program, an individual increases his earned income to the extent that he no longer receives transfer payments he will treat the foregone receipts as a cost. Similarly he will treat any stipend received while enrolled in the program as a benefit. Second, the increased earnings of graduates of vocational-technical education programs may have an induced effect on the labor force participation of other members of the household which would have to be included in costs both from the individual and societal points of view. For example, if a husband experiences increased income as a result of a training program the wife may withdraw from the labor force.

Setting forth the elements of cost-benefit analysis separately for society and for the individual suggests situations where particular programs would be judged desirable for society (the individual) but undesirable for the individual (society).[1] Where operating and capital costs are relatively high and no tuition is charged individuals may be attracted to a program where societal benefits would not justify societal costs. Conversely, when reduced transfer payments are a significant consideration for individuals who use (probably only implicitly) high discount rates programs which are desired by society will not attract enrollees. Such a situation might call for the payment of stipends and/or continued transfer payments. The difficulty in establishing occupational training programs for mothers who receive ADC payments would illustrate this point.

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[1] Ernst Stromsdorfer's suggestion that the analysis be done for particular units of government as well is interesting. Where programs are desirable from the societal viewpoint but not from that of the unit of government involved a case can of course be made for financial support from a higher level of government.

Illustration II

Comparison of three evaluation techniques

The Three Criteria:

I Present Value of Net Benefits: $\sum_{t=0}^{n} \frac{B_t - C_t}{(1+i)^t}$

II Rate of Return: $\sum_{t=0}^{n} \frac{B_t - C_t}{(1+r)^t} = 0$

III Benefit Cost Ratio: $\dfrac{\sum_{t=0}^{n} \frac{B_t}{(1+i)^t}}{\sum_{t=0}^{n} \frac{C_t}{(1+i)^t}}$

where B_t=benefits in year t
C_t=costs in year t
n=number of years spanned by the analysis
i=social discount rate
r=rate of return

The Three Decision Rules:

I Choose programs having the highest present values of net benefits; reject any program having a negative present value of net benefits.

II Choose programs having the highest rates of return; reject any program which has a rate of return less than the social discount rate.

III Choose programs having the highest benefit-cost ratios; reject any program having a benefit cost ratio less than one.

The Example ($i=5\%$).

Program	Cost t=0	Benefits		Criteria measure		
		t=1	t=2	I	II	III
A	$200	$106	$112.36	$2.86	r equals 6 percent	1.014
B	100	107	0	1.90	r equals 7 percent	1.019
C	50	0	57.14	1.20	r equals 6.9 percent	1.024

Program A is preferred using Criterion I; Program B is ranked higher than Program C.

Program B is preferred using Criterion II; Program C is ranked higher than Program A.

Program C is preferred using Criterion III; Program B is ranked higher than Program A.

In most cases the ratio of benefits to costs is the most appropriate criterion to use in planning or evaluating vocational-technical education programs. Illustration II presents the case in terms of an example carefully concocted to show the essential difference between the present value of net benefits and rate of return criteria, discussed in Professor Stromsdorfer's paper, and the benefit-cost ratio criterion. If it is assumed that projects A, B, and C are not mutually exclusive and further that they are reproducible then, given any constraint on the budget available to finance costs at t=o, the benefit-cost ratio criterion leads to maximizing the present value of net benefits for a set of programs within the limits imposed by the budgetary constraint. For example, in Illustration II if the constraint were $400 eight program C's would be best. (If an individual were choosing among the three programs he would consider them mutually exclusive and would enroll in A.) It is precisely because the benefit-cost ratio technique focuses on the relative differences between benefits and costs that it is generally to be preferred for this purpose over either the net present value or the rate of return criteria which both are based on the absolute differences between benefits and costs.

Equity as a Criterion in Evaluation

If planning decisions and evaluations were made purely in terms of cost-benefit analysis, as discussed above, educational resources would be allocated more efficiently but there is no presumption that the societal objective of equality of educational opportunity would be met. This latter concept is difficult to specify in an operational sense though it is clear that equating the marginal benefits, per dollar of cost, of occupational education programs is not equivalent to providing equal opportunity of occupational education. Societal objectives with respect to income distribution may even differ from equality of educational opportunity.

There are at least two possible methods of explicitly considering income distribution in an analysis of vocational-technical education. One would attach a set of weights to the additions to income attributable to occupational education. Thus an additional $1,000 of income per year would be weighted more heavily in the case of an individual whose income was increased from $4,000 to $5,000 than for an individual whose income increased from $10,000 to $11,000. Needless to say any such set of weights would be highly arbitrary unless one concluded that the marginal tax rates used in the federal, personal income tax reflect a societal judgment with respect to the marginal utility of income. The second method would require a local school agency to plan and evaluate vocational-technical education using cost-effectiveness rather than cost-benefit analysis. Minimization of the drop-out rate could be taken as a goal and programs selected so as to equate marginal reductions in the drop-out rate per dollar of cost. An alternative goal on which to base cost-effectiveness analysis might be an explicit income target for graduates such as maximizing the portion of graduates who earn, say $5,000 per year. Individual programs would be judged in terms of the contribution made, per dollar of cost, toward achieving that goal. (At some point educational decision makers might conclude that a program costing $X which would increase the portion of graduates earning $5,000 per year from 80 to 81 percent is not to be preferred to a program also costing $X which increased the portion of graduates earning $6,000 per year from 60 to 65 percent.)

Questions of income distribution enter into the planning and evaluation of vocational-technical education in at least one other way. When full employment does not prevail graduates of occupational education programs may receive preferential treatment in the labor market which is not attributable per se to their education. The resulting shift in the incidence of unemployment (and shifting of transfer payments) could only be judged in light of the change in the distribution of income.

Review of Three Studies

The three studies reviewed below were selected because of their focus on vocational-technical education at the secondary and post-secondary level; they represent the only completed work, known to this author, which attempts to measure the benefits of vocational-technical education. Several similar studies have been done of retraining programs.

Max Eninger's study, ***The Process and Product of T & I High School Level Vocational Education in the United States*** (American Institutes for Research), financed by the Ford Foundation, is not a benefit-cost study as it contains no cost information, but does present extensive data concerning the post-graduation experience of vocational education graduates. These data were derived from survey questionnaires mailed in the fall of 1964 to about 10,000 male graduates from the classes of 1953, 1958, and 1962 at 100 high schools in 38 states. The 50 comprehensive and 50 vocational and/or technical schools, each of which offered at least three trade and industrial (T & I) courses, were selected on the basis of a stratified random sample. The strata were geographical regions, total school enrollment, and type of school, i.e. comprehensive, vocational, technical, and vocational-technical. Some of the data generated by the study are directly relevant to the problem of estimating the probable benefits of vocational education in terms of earnings.

The first finding of interest concerns the length of time required to find an initial job. The comparison shown in Table 1 indicates that academic graduates spent a longer time between graduation and their first job than did vocational graduates. While the differences in mean values are statistically significant the relatively large standard deviations indicate that the type of graduate per se probably explains a small portion of the total variation. The data listed in Table 2 suggests that vocational graduates get significantly more help from the school system in landing their first job, thus a large part of the differences reported in Table 1 may be attributable to placement activities rather than type of education.

TABLE 1.—MONTHS REQUIRED TO FIND INITIAL JOB—COMPARISON OF VOCATIONAL AND ACADEMIC GRADUATES

[Based on cases that went directly to work]

Year of graduation	Type of graduate	Number of cases	Months	
			Mean	Standard deviation
1953	Vocational	946	1.3	2.6
	Academic	175	2.6	4.8
1958	Vocational	1,193	2.3	4.0
	Academic	207	4.0	5.7
1962	Vocational	1,807	1.7	2.8
	Academic	256	2.8	4.3
Combined	Vocational	3,960	1.8	3.2
	Academic	638	3.1	5.0

Source: "The Process and Product of T. & I. High School Level Vocational Educationi n the United States," September 1965, p. 5-8.

TABLE 2.—METHODS USED TO GET 1ST FULL-TIME JOB BY TYPE OF GRADUATE

Means used to get 1st full-time job after graduation	Type of graduate			
	Vocational		Academic	
	N	Percent	N	Percent
Answering want ad	290	7.5	27	5.6
Private employment agency	69	1.8	18	3.8
State employment agency	203	5.2	36	7.5
Help of schoolteacher	696	17.9	9	1.9
Help of school counselor	206	5.3	3	0.6
Help of school principal	130	3.3	4	0.8
Help of school placement service	371	9.6	6	1.2
Help of relative or friend	1,485	38.2	251	52.5
Through school co-op program	350	9.0	6	1.2
Other than above	857	22.1	133	27.8

Source: "The Process and Product of T. & I. High School Level Vocational Education in the United States," September 1965, p. 5-38.

TABLE 3.—EMPLOYMENT SECURITY—COMPARISON OF VOCATIONAL AND ACADEMIC GRADUATES

[Based on graduates with no college education who have 6 months' employable time]

Year of graduation and type of graduate	Number of cases	Percent of employable time employed	
		Mean	Standard deviation
1953			
Vocational	819	93.5	14.4
Academic	149	89.6	20.0
1958			
Vocational	1,188	88.0	19.5
Academic	212	83.2	21.4
1962			
Vocational	1,528	85.0	22.1
Academic	230	76.2	29.0
Total, combined:			
Vocational	3,548	88.0	19.9
Academic	591	82.1	24.9

Source: "The Process and Product of T. & I. High School Level Vocational Education in the United States," September 1965, p. 9-10.

TABLE 4.—WAGE RATES—COMPARISON OF VOCATIONAL AND ACADEMIC GRADUATES WITH NO COLLEGE EDUCATION

Year of graduation and type of graduate	Number of cases	Initial wage rates		Number of cases	Present wage rates	
		Mean	Standard deviation		Mean	Standard deviation
1953:						
Vocational	826	$1.31	$0.49	822	$3.02	$0.95
Academic	150	1.44	.61	152	3.06	1.22
1958:						
Vocational	1,182	1.46	.52	1,198	2.46	.79
Academic	215	1.48	.55	221	2.35	.38
1962:						
Vocational	1,504	1.46	.56	1,536	2.01	.70
Academic	208	1.44	.49	208	1.87	.62
Combined:						
Vocational	3,524	1.43	.53	3,568	2.40	.89
Academic	573	1.46	.54	581	2.36	1.02

Source: "The Process and Product of T. & I. High School Level Vocational Education in the United States," September 1965, p. 9 44; 9-53.

Closely related to the amount of time required to find an initial job is the total portion of time spent employed. The differences between vocational graduates and academic graduates without college experience is shown in Table 3. Vocational graduates spent a smaller portion of their time since graduation unemployed. Though the difference narrowed with the passage of time, it was still statistically significant for the class of 1953. These data can be used along with the initial and present wage rates, reported in Table 4, to estimate the differences between the present value of total earnings for vocational graduates and academic graduates who did not go on to college. Yearly income estimates were obtained by assuming a constant rate of growth between initial and present wage rates multiplied by 2080 (hours per year) and by the portion of time employed, as reported in Table 3. These yearly income estimates were then discounted at five percent back to the year of graduation and summed. For the class of 1953, the present value of the income of academic graduates exceeded that of vocational graduates by about $1.270. For 1958 graduates the present value (at time of graduation) of the next six years of income for vocational graduates was about $3,450 in excess of that of academic graduates. For the class of 1962 the present value of the next two years of income for vocational graduates exceeded that of academic graduates by about $1,060. The appropriate conclusions to draw from these comparisons are not very clear. Either vocational education has improved since 1953 or the earnings advantage disappears over an eleven year period.

Two additional findings of the AIR study are of interest in terms of the criteria which have traditionally been used to evaluate vocational-technical education. In all three of the graduating classes surveyed more vocational graduates had an initial job that was "completely unrelated" to the trade which they had studied than in the "same trade", as indicated in Table 5. These data do not conform to the placement rates of well more than half widely mentioned in the vocational education literature.[2] It is also argued in this literature that the equipment used in vocational-technical programs is obsolete in comparison to industry. Many vocational educators acted in accordance with this argument by devoting a major portion of federal aid under the Vocational Education Act of 1963 to equipment purchases; yet the data in Table 6 suggest that graduates of T & I programs did not consider the schools woefully inadequate on these grounds.

There is of course a great deal of additional information contained in the AIR report. The data, particularly in a raw form could be used to test many interesting hypothesis, particularly hypotheses which permit multi-variable analysis. It is to be hoped that additional mining of these data will be undertaken though it is unfortunate that no cost information is available.

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[2] See, for example, "Education for a Changing World of Work," Report of the Panel of Consultants on Vocational Education, U.S. Department of Health, Education, and Welfare, Office of Education, 1963, pp. 90–97.

TABLE 5.—TREND IN NUMBER AND PERCENTAGE OF VOCATIONAL GRADUATES PLACED IN 4 CATEGORIES OF RELATIONSHIP BETWEEN TRADE STUDIED AND FIRST FULL-TIME JOB

Relation of first job to trade studied in high school	Year of graduation						Combined	
	1953		1958		1962			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Same trade	301	32.6	313	27.6	498	29.6	1,118	29.8
Highly related trade	168	18.2	189	16.6	333	19.8	691	18.4
Slightly related trade	150	16.3	164	14.4	229	13.6	544	14.5
Completely unrelated trade	303	32.9	470	41.4	625	37.1	1,402	37.3

Source: "The Process and Product of T. & I. High School Level Vocational Education in in the United States," September 1965, pp. 5–16.

TABLE 6.—TOOLS AND EQUIPMENT—COMPARABILITY ANALYSIS AND TIME REQUIRED TO LEARN WHAT WAS VERY MUCH DIFFERENT BY YEAR OF GRADUATION

Tools and equipment	Year of graduation							
	1953		1958		1962		Combined	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
How did they compare with those used in school?								
Identical or almost so	155	49.8	182	52.8	265	56.7	604	53.5
Little real difference	122	39.2	132	38.3	161	34.5	418	37.0
Very much different	34	11.0	31	8.9	41	8.8	107	9.5
If very much different, how long did it take to learn?								
Only about a few weeks	13	39.5	10	37.0	3	43.6	41	41.0
Less than 3 months	6	18.2	5	18.5	17	23.1	29	20.0
About 3 to 6 months	8	24.2	6	22.2	9	7.7	17	17.0
About 6 months to a year	0	0	3	11.1	3	12.8	8	8.0
More than a year	6	18.2	3	11.1	5	12.8	14	14.0

Source: "The Process and Product of T. & I. High School Level Vocational Education in the United States, September 1965, p. 6–3.

The study by Carroll and Ihnen, *Costs and Returns of Technical Education: A Pilot Study*, was sponsored by the Office of Manpower Policy, Evaluation and Research of the Department of Labor. Data were gathered from 45 male graduates of two year post-secondary technical education programs at Gaston Technical Institute (Gastonia, North Carolina) and a control group of 45 North Carolina high school graduates paired with Gaston Tech graduates who had similar academic records. All of the high school graduates in the control group had no formal post high school education. Monthly income data were obtained for the 1957–64 period. Table 7 shows the comparison in mean monthly incomes for Gaston Tech graduates and the control group suggesting a differential which grows over time. A multiple regression equation was estimated to account for the possible effect of other variables on earnings. The results are shown in Table 8 but are difficult to interpret as only the one equation is presented rather than several via a technique such as step-wise regression which would show the effect of different combinations of variables.[3] The coefficients for X_1, X_9 and X_{10} do however agree closely with the differences in simple average monthly incomes reported in Table 7. Some evidence is also presented in the study to indicate that the graduates of the two year technical education program also enjoyed larger fringe benefits than high school graduates.

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[3] It is not appropriate to treat each reported monthly income as a separate observation. The number of degrees of freedom is limited by the 90 individuals surveyed.

TABLE 7.—AVERAGE MONTHLY INCOMES OF GASTON TECH AND HIGH SCHOOL GRADUATES FOR SPECIFIED MONTHS AFTER GASTON TECH GRADUATES COMPLETED TECHNICAL SCHOOLING

Month	Gaston Tech		High school	
	Income	Coefficient of variation [1]	Income	Coefficient of variation [1]
2	353	12.0	315	33.1
14	404	12.3	331	29.9
26	442	14.5	351	29.2
38	483	14.8	370	28.9
50	516	17.0	405	25.6

[1] The coefficient of variation is the standard deviation of monthly incomes expressed as a percentage of the mean.

Source: "Costs and Returns of Technical Education: A Pilot Study," July 1966, p. 23.

TABLE 8.—REGRESSION COEFFICIENTS AND STANDARD ERRORS[1]

Variable	Coefficient	Standard error
X_1—Technical education (1 for Gaston Tech, 0 for high school graduates)	[2] $38.98	$4.63
X_2—High school grade average	[2] 15.76	2.23
X_3—Age-experience	[2] 18.38	.44
X_4—Mother's education	[2] 9.43	.48
X_5—Residence during high school (1 for urban, 0 for rural)	[2] 31.77	2.53
X_6—Military service	[2] −1.53	.03
X_7—Migration from home community	[2] .23	.03
X_8—Size of high school class	[2] −.08	.01
X_9—Trend, Gaston Tech (0 for high school graduates)	[2] 3.42	.09
X_{10}—Trend, high school (0 for Gaston Tech graduates)	[2] 2.30	.09
Constant term (−320.82).		
Standard error of regression ($Y.X_{1-10}$)(72.43).		
Fraction of total variation associated with regression (R^2) (0.55).		

[1] Based on 4,759 observations of monthly income.

[2] Coefficients are significant at the .01 level.

Source: "Costs and Returns of Technical Education: A Pilot Study," July 1966, p. 26.

Opportunity costs were estimated on the basis of the initial income experience of the high school graduates (corrected by the results of the multiple regression equation to fit the characteristics of the Gaston Tech graduates) less part time earnings of the technical students. The costs of operating the technical education program were added to opportunity costs to estimate total social costs (see Table 9). Combining these cost estimates with two alternative income projections (adjusted for mortality rates) yielded the rates of return listed in Table 10. These rates of return are based on the supposition that the income advantage of the technical graduates will be maintained at the absolute level observed four years after graduation or increased. There appear to be no a priori grounds for rejecting the possibility that the advantage might decline in the future even to the extent of being reversed.

The Carroll-Ihnen study is a good example of applying cost-benefit analysis to a specific educational program. It could have been improved with a more sophisticated multi-variable analysis.[4] One wonders if there were significant differences, with respect to the income of graduates, between the four, separate technical programs offered at Gaston Tech.

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[4] For a somewhat similar analysis of the variables associated with the relative success of retrained workers in the labor market see Ernst W. Stromsdorfer, "Determinants of Economic Success in Retraining the Unemployed: The West Virginia Experience" (forthcoming in the Journal of Human Resources).

TABLE 9.—AVERAGE PRIVATE AND PUBLIC COST PER GASTON TECH GRADUATE FOR 2 YEARS OF TECHNICAL SCHOOLING

Type of cost	1st year	2d year	Total
Private:			
Tuition and fees	$272	$272	$544
Books and supplies	142	84	226
Forgone income [1]	1,896	2,254	4,150
Total (private)	2,310	2,610	4,920
Public:			
Support of the school (facilities, supplies and personnel)	729	729	1,458
Transfer payments (GI bill and unemployment) [1]	512	535	1,047
Total (public)	1,241	1,264	2,505
Total (social)	3,551	3,874	7,425

[1] The sum of these 2 items represents income which would have been earned if student were fully employed, less actual part-time earnings.

Source: "Costs and Returns of Technical Education: A Pilot Study," July 1966, p. 36.

TABLE 10.—RATES OF RETURN ON INVESTMENT IN THE TECHNICAL EDUCATION OF GASTON TECH GRADUATES BY PROJECTION

[In percent]

Investment	Projection 1 [1]	Projection 2 [2]
Social	11.7	16.5
Private	16.9	22.0
Private [3]	14.3	19.1

[1] Assuming constant absolute differences in income of $1,036 per year.
[2] Assuming differences in income to grow at 2 percent per year.
[3] Without GI bill payments.

Source: "Costs and Returns of Technical Education: A Pilot Study," July 1966, p. 49.

A. J. Corazzini's Office of Education financed study, *Vocational Education: A Study of Costs and Benefits* [*A Case Study of Worcester, Massachusetts*] is another attempt to apply cost-benefit analysis to a specific vocational education program. Separate four year vocational high schools, one for boys and one for girls, accouned for about 1 percent of the high school enrollment in Worcester during the 1963–64 school year. In addition the Worcester Technical-Industrial Institute enrolled over 200 students in 13th and 14th year programs, sharing facilities with the boys vocational high school. About half the students in the Institute were enrolled in the eleven trade programs offered for the high school students, the other half were enrolled in four technical programs.

After a general discussion of the economics of education and cost-benefit analysis—in which some confusion arises because unemployment and welfare payments are not treated as transfer payments and because taxes on additional income are double counted as a benefit over and above the additional income itself—Corrazini makes detailed estimates of the costs of Worcester's vocational education programs in comparison to the regular high schools. These estimates are shown in Table 11. Implicit rents were imputed for the vocational schools, following the format suggested by T. Schultz,[5] by (1) multiplying a 5.1% interest charge times the "full fair market value of the physical property", as determined by the local tax assessor, (2) adding 2%, for depreciation, of the current average cost in Massachusetts of vocational school buildings of comparable size, and (3) adding 10%, for depreciation, of the equipment costs of a new school of comparable size. This procedure obviously is largely arbitrary, especially in basing annual charges for building and equipment on replacement costs. Such a procedure implies that the cost of the Worcester program increases whenever qualitative or price changes make new buildings and equipment more expensive; arbitrary procedures of some sort will have to be used, however, until there is a major reform in school accounting techniques. Estimating the cost of tax exemption as the assessed value of the school property times the local tax rates is not only arbitrary but inappropriate unless one is convinced that such a procedure truly measures the costs imposed by the school on other public agencies—police, fire, etc. Despite these methodological objections it does seem safe to conclude that, in Worcester, vocational education costs about twice as much per pupil, per year, as regular high school education. The higher costs are due largely to lower pupil-teacher ratios in the vocational schools and somewhat higher salary levels.

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[5] "Capital Formation by Education", Journal of Political Economy, vol. LXVIII (1960).

In continuing the analysis Corazzini assumes that opportunity costs of regular and vocational high school graduates are the same.

"Given that vocational education is more expensive and that investment in regular high school is profitable, then the choice between the two investments will be a matter of indifference if and only if, the vocational education generates an income stream which lies above that which the regular high school generates, and the present value of the differences in these two streams is just equal to the present value of the differences in the costs of the two programs." (p. 51)

This statement is true only if the net present value criterion were used. With the benefit-cost ratio criterion the two educational investments would only be a matter of indifference when (1) the present value of the differences in the two income streams was just equal to the present value of the differences in costs and when (2) the benefit-cost ratio of regular high school education was 1 : 1. With a higher initial ratio equal additions to both benefits and costs will reduce the ratio.[6]

TABLE 11.—TOTAL PUBLIC PER PUPIL COSTS, 1963-64

	Regular high school cost per pupil enrolled	Boys trade cost per pupil	Girls trade cost per pupil	WITI cost per pupil	Practical nursing cost per pupil
Current costs	$452.00	$964	$793	[1] $1,028	$457
Implicit rent	59.50	165	130	165	130
Property tax loss	21.00	81	54.50	81	54.50
Total	532.50	1,210	977.50	1,274	641.50

[1] This estimate of WITI current costs is a simple average of the $964 figure which applies to WITI students in the trade courses and the $1,093 estimate which applies to those WITI students in the four technical courses.

Source: "Vocational Education, a Study of Benefits and Costs [a Case Study of Worcester, Mass.]" 1966, p. 38.

TABLE 12.—NUMBER OF YEARS WAGE DIFFERENTIALS WOULD HAVE TO REMAIN IN ORDER FOR THE PRESENT VALUE OF EXTRA COSTS TO BE EQUAL TO PRESENT VALUE OF EXTRA RETURNS

Annual wage differential	5 percent rate of discount	10 percent rate of discount
$90	(1)	(1)
260	17	(1)
360	11	30
560	6½	10
500	7	12

[1] Never equated.

Source: "Vocational Education, a Study of Benefits and Costs [a Case Study of Worcester, Mass.]," 1966, p. 57.

As evidence of the benefits of vocational education twelve local firms, accounting for 23% of the manufacturing employment in the Worcester SMSA, were surveyed with respect to starting wage rates for regular high school and vocational high school male graduates. In all twelve cases the vocational school graduate earned a premium ranging from 4¢ to 28¢ per hour.[7] If these wage rate differentials are converted into annual amounts, the number of years over which the differentials would have to be earned in order for their discounted sum to equal the added costs of four years of vocational education could be calculated; they are listed in Table 12. Without additional information about the actual earnings of graduates the analysis could only be pushed further by pure conjecture. Even without this kind of information it is certainly appropriate to point out, as Corazzini does, that—

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[6] There is a good deal of confusion throughout Corazzini's paper concerning the distinction between the net present value, rate of return, and benefit-cost ratio criteria. At another point (p. 49) Corazzini suggests that costs and benefits of both the regular high school and the vocational high school be thought of as comparisons with the experience of a student who drops out after the eighth grade. In this case added costs of vocational education and any associated benefits would have a smaller effect on the ratio of benefits to costs because both numerator and denominator would be absolutely larger.

[7] During the period surveyed, June 1964 to June 1965, 71 high school and post secondary vocational graduates and 23 regular high school graduates were hired by these 12 firms (see p. 96).

> ". . . decision-makers should also be concerned with the opportunity costs to the community which are associated with an investment in high school vocational education. In the case of Worcester a decision to discontinue vocational education for Boys could release $300,000 which could be spent on the enrichment of the entire high school system.
>
> "Moreover, in 1964 the per pupil current costs at the regular high school were $452. The current costs at the Boys' Vocational School in that same year were $964 per pupil resulting in a difference of $512 per pupil. Thus public authorities could give a local firm up to $512 per year to train a regular high school graduate and still spend only as much as is spent on a vocational school student in one year. This type of on-the-job training might result in greater returns to training than can be gained through vocational school training . . ." (p. 61)

Included in the Worcester study is a survey of the follow-up data gathered by the girls vocational high school. By 18 months after graduation about half of the girls were still employed in jobs for which they had been trained though at relatively low wage rates. Without comparative information concerning the employment experience of girls from the regular high school no further analysis can be made.

A separate analysis was made of the post-secondary programs in Worcester.[8] Foregone earnings were estimated at $2423 per year for the post-secondary students which, in addition to school related out-of-pocket costs and public costs, yields an estimate of $3818 per year as the total resource cost of this program. Information on initial annual wage rates of graduates in the four technical programs of the two year program indicates a differential of $400 per year over the vocational high school graduates. For the post-secondary graduates in the eleven trade programs the average wage differential over the high school graduates with the same vocational training was equal to $160 per year. Corazzini suggests that a differential of $160, if maintained over a working life, would not make the post-secondary education a good investment. The relevant wage comparison though is with the regular high school graduate, a differential which is also about $400. With a five percent discount rate it would take about 50 years for the present value of $400 per year to equal the total cost over two years and about 22 years to equal total private costs. Information on wage differentials over time would of course be nececessary to make any final analysis.

In a section devoted to an analysis of the Worcester vocational education program from the point of view of dropout prevention Corazzini compared the experience of students in the vocational program with those in the commercial program. He estimated that 18% of the vocational students were prevented from dropping out.

A final section is devoted to a very interesting discussion of the relationship between the vocational school and firms in the Worcester area. There is a strong tie—the school considers its responsibility to be training for jobs in the local area; there is little evidence of geographic mobility among its graduates. There is, however, some evidence of upward social mobility in terms of a comparison between the jobs for which students are training and their fathers' occupation.

Hardly any mention was made of the evening vocational education and MDTA programs in Worcester. A full analysis would have to include the benefits and operating costs of these programs even if no capital costs were allocated to them. If benefits exceed operating costs this is an important by-product of regular program.

These three studies are more interesting from a methodological and theoretical point of view than as definitive statements with respect to the relationship between benefits and costs of vocational-technical education. The two case studies are flawed, the Worcester study more seriously, and have no claim to generality:

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[8] The part of the study is also reported in A. J. Corazzini, "When Should Vocational Education Begin?", Journal of Human Resources, vol. II, No. 1, winter 1967.

the survey of 100 schools is more comprehensive but contains no cost data and one cannot be very confident that the comparisons between vocational graduates and academic graduates who did not go on to college is really a comparison of similar individuals.

Conclusions

The intricacies of the theoretical literature and complexities of empirical research can be put in perspective. Educational planning is directed toward maximizing benefits, broadly defined, subject to a number of constraints. The specification of the constraints is probably more important than precisely defining benefits. The constraints are budgetary, legal, societal, and individual. Money for education is limited and hence the resources which money commands are scarce. Attendance is legally required from six to sixteen thus imposing a constraining obligation on school systems. Society wants practically all students to graduate from high school and equality of educational opportunity maintained. Individual students want education to meet their own desires and interests and if it doesn't they will drop out once legally free to do so. Given the desire to maximize benefits and the reality of these constraints (and probably others) some implications follow for the place of cost-benefit and cost-effectiveness analysis in planning and evaluating vocational-technical education.

1. Analyze Specific Alternatives. The powerful force of contraints makes a determination of the benefit-cost ratio for a program (or rate of return or present value of net benefits) only partially significant because that would only answer the question, "Should the program be continued or discontinued?" The real question is, "Should the resources devoted to this program be diverted instead to a specific alternative?" The Federal research effort would be better directed toward analyzing the effects of transferring say $100 million from support of vocational education to support of, say, school libraries (or vice versa) rather than attempting to identify the costs and benefits of each separately. Similarly local case studies should emphasize alternatives like post-secondary technical education as compared with subsidized on the job training.

2. Consider the Individual First. When local planners introduce a new vocational-technical program they should be able to show, at least roughly, that the present value of monetary benefits to the enrollee outweigh the monetary costs to him (mainly opportunity costs). Most vocational-technical education is for students legally free to drop out of school; they are in a position to act in their own interests and should not be counselled to enroll in a program unless that benefit-cost condition is met. If societal benefits are very significant and individual monetary rewards slight the payment of stipends to enrollees should be considered.

3. Consider Equality of Educational Opportunity and Minimization of the Dropout Rate as Specific Goals. One vocational-technical education program having a high ratio of benefits to costs should not be established or continued rather than an alternative with a lower ratio if, as a consequence, equality of educational opportunity should be denied a group of students. The school systems do not refuse to educate girls because the benefit-cost ratio is low why then should educational resources be allocated so that low benefit-cost ratio programs for boys be eliminated (provided boys want to enroll in the program either because of interest or because they view the ratio of private benefits to costs as sufficiently high)? Selecting programs on the basis of the effect they have on the dropout rate and on maintenance of equality of educational opportunity calls for cost-effective analysis.

Cost-benefit and cost-effectiveness analysis have the prime virtue of recognizing the constraint on the availability of resources for vocational-technical education. If used within a framework which clearly recognizes other constraints on the educational system these two methods of analysis can make a significant improvement in the planning and evaluation of vocational-technical education.

Dr. WORTHINGTON. I, too, have attended the 2-day conference, and I do not believe the economists have yet worked out a system where it will apply to the human factors involved in the educational programs. We in New Jersey are studying this and hope to be doing the analyses as far as the economists are concerned about educational outcomes.

We in New Jersey for years have convinced the public, and rightfully so, that vocational education pays. I can think of students in our distributive education program last year in 80 schools, kids who went to school half the day and worked out in distribution half afternoons—these boys and girls earned $1.6 million and $600,000 in Federal income tax was paid on those earnings. Ninety percent of them were gainfully employed when they finished high school.

Mr. SCHEUER. I would like to ask a second question.

You occasionally pick up the Wall Street Journal and you read an article—Pan American Airways is in a frantic state because they have projected how many supersonic aircraft they are going to need in 1972, and they don't know where to begin to get the mechanics and the technical help to man their aircraft.

You read of other industries that have done these long-term prognostications and feel they are in desperate straits for the technical help they need. Stanley Ruttenberg testified before our committee last year, and I got a very clear impression from him that he did not feel that we had enough hard analysis of where the action was going to be 2 or 3 or 4 years from now in jobs so that we could provide the training schools with the clear idea, curriculums, job-training design to help them put kids into the pipeline now and come out of that pipeline with skills that will be in demand.

In other words, we seem to be putting kids into the pipeline all too frequently and coming out with skills that were in demand 2 or 3 or 4 years ago that may have been eliminated in the meantime.

Do you think we ought to be thinking in terms of creating an economic model of what the vocational economy, so to speak, is going to be looking like 3, 4, 5 years from now? Is there anything that you think should be added to the present pattern of research and analysis so that the vocational schools can plan very much more accurately and pinpoint the design of their programs to produce kids with job skills that are in demand when they are on the job lines?

Mr. BUSHNELL. Yes, sir; a good deal of work is going on in this area. When we began the research program 2½ years ago, we set as our No. 1 priority the problem of attacking this matter of getting information to the schools in advance of the emergence of these job opportunities.

Just to describe two or three projects underway: We have funded in cooperation with the Department of Labor on a joint basis a model development exercise at the Systems Development Corp. in Santa Monica and also at Princeton University to attempt to ferret out what are the likely forces that will be operating in the next 10 to 15 years that will create new jobs within clusters of industry.

Another effort has been to take national employment data and attempt to break this down into regional and State levels, so that it can be put to use by the curriculum planning personnel in the vocational programs in our local schools.

This is a difficult job to do. It means translating what are identified as employment opportunities into terms that can be used by the curriculum planner to sell his school board on the kind of training that should be invested in. You have to have a rather persuasive case before you can make a successful appeal before the school board or hierarchy of the administration.

Dr. Wilsey of Booz, Allen, & Hamilton has been involved in research in this area.

Dr. Wilsey. We are working with Indiana and with regions in Indiana, and there we tried through very simple systems analysis techniques to look at individual regions within the State, 13 of these, and anticipate what the job requirements were going to be in future periods and then match this up with both the interests of students emerging from the high school and those available for retraining.

We have designed this in such a way that these studies can be done annually, semiannually, quarterly, by region so the vocational technical programs will be geared precisely to the requirements as they change. Many of these vocational training programs, of course, can be of a fairly short duration so the leadtime need not be long, and we can do a better job through this kind of continuing analysis of requirements in supply of training for the immediate opportunities.

Mr. Scheuer. That is exactly the kind of thing I am talking about. Under whose auspices is that program being carried?

Dr. Wilsey. Our client in that instance was the newly established Indiana Technical College, and we worked with them in planning their regional institutes.

Mr. Scheuer. Is there any desire in a program of this type of research to set up enough of these regional programs so that any kid anywhere could go to some local resource and get counseling to tell him the spectrum of jobs that would be of interest and appropriate to him in which he could get appropriate training?

Mr. Bushnell. Yes, I think that is a somewhat different problem than the programs generating within the schools. The problems there are convincing the kid he should go into a particular occupational area and the process of decisionmaking is a rather complex one.

Mr. Scheuer. I think the problem of motivation is the reasonable assumption on everybody's part, but when the kid finishes the program, is there going to be a job for him? One of the frustrating things about the Job Corps and the work training programs is the assumption that it has sort of grown like Topsy, so it is unlikely after you finish these programs that there is going to be a job for you and nothing could be more deadening to motivation than the unspoken assumption that the whole thing would be an exercise in futility.

Dr. Wilsey. The needs of our economy for these trained jobs, and again in Indiana when we made the regional studies we found one-time training programs turning out young people for skills where there was an oversupply and at the same time in this health sector, for example, there was not sufficient counseling and guidance to lead them into the specific training perhaps that would prepare them for many jobs in sectors where there is just a great shortage of people.

Mr. Scheuer. In this program do you have any input by the major corporations as to what their needs are for employees in particular job categories?

Dr. Wilsey. In the original study this was the case. We had input from all employers in each one of these regions and the system for the future is set up to provide for continual gathering of that information by region. This was not limited just to industry but it went through the entire private sector of our economy, all of the sectors of the economy and the public sectors as well.

Mr. QUIE. Would the gentleman yield?

Mr. SCHEUER. Of course.

Mr. QUIE. My understanding to your previous question was that there was no place a student could go to find out what jobs are available when he finishes his training. Further that neither you nor the Department of Labor have made that kind of a study. Is that correct? You more or less went around the bush on that.

Mr. BUSHNELL. I think the answer was yes in a limited way. To my knowledge there is no national program of information distribution to a counseling center which would tell where the jobs are going to be around the country 5, 10 years hence. The effort has been to make this a regional effort to counsel students on regional opportunities and there are a number of models that we could turn to as examples.

Again, what I was trying to indicate was there is a difference between having the information and then getting that information into the head of the kid so that he makes appropriate choices. That is where the real problem occurs. He may have a low level of aspiration, he may not have the kinds of social skills Dr. Howard described which will allow him to qualify, and it is there we need to get some real focus.

Mr. QUIE. It is my understanding when you say in a limited way, that it is really limited in fact, tremendously limited. You talk about 5 to 10 years from now. We don't know what is available right now.

Mr. SCHEUER. That sort of information ought to be available from their professional counselor at the school where they are struggling with deciding what to do with their lives.

Dr. COOK. I would like to respond to that if I may and then make a plea of caution. I believe we can go overboard. This would be a very serious mistake. We don't really know what the opportunities are 4 or 5 years down the pike. We really don't have any adequate way of making these predictions in terms of given geographical areas or communities.

I would like to urge that in some way—and I had this as one of the four vital parts for vocational education—we need to have a systematic, continuous followup of every graduating class to determine specifically what kind of jobs they do go into 1 year, 2 years after graduation and the specific skills demanded of those jobs.

At least we can feed back on a 1-year deficit into the school systems this kind of data.

The second part would be to have an intensified preparation program in a year's time, if needed.

Mr. SCHEUER. I have one last question for Dr. Bushnell on the subject of the subprofessional personnel.

Your reaction would be, then, is that you would have to have an amendment to the bill that would add the option of research and development, the option of carrying on research and development to identify new careers in public service to work with the institutions in the private sector, the professional groups involved in designing these jobs and in effect carving out the professional job description those funds which can be carried on by other professionals and then, having done that, design training and development programs which would involve leadership in the public and private sectors and then thirdly carrying on some kind of continuing evaluation and scrutiny of the programs as to their success, both in giving careers to the poor and in improving the quality of public service?

Mr. BUSHNELL. I would like to respond to that, Mr. Scheuer, as my own opinion and perhaps not necessarily representing the Office of Education opinion on that.

I would think this would be a very useful and meaningful focus to provide in that we are now just beginning to understand this process of opening up such occupational needs; the problem of working with professional associations who, in effect, have to give away some of their responsibilities to accept subprofessionals into their area, the problem of articulating training within the schools and after graduation in such a manner that the person can climb a career ladder so that he may not be kept only at the lower level of responsibility but he can qualify at varying stages throughout his career for higher levels of responsibility.

Ideally, for instance, in the medical field, he could become an M.D. after 20 or 30 years of experience.

Mr. SCHEUER. We happen to have in my district one of three public community services in the country, one at Denver and one at Brookline, Mass., and you do get some terrific motivations.

One of the problems we are going to run into, once you enable this person to reach this threshold level of motivation and doors open up, is that he is not satisfied continuing doing the kind of work you would describe as encompassed by the job title "medical aide."

They are hellbent for election. They want to continue and they don't want to settle on any plateau. They are impatient for more and more training and we are going to have to run like the very devil to stand still to design the training programs to keep up with their aspirations and they are going to make a great contribution to our society.

One last question. You did tick off, perhaps, a dozen or more different areas where research was going on in the field of subprofessional training and employment. Is there any way that we are going to make this research available out in the field?

We have 123,000 or 124,000 education aides employed under title I. The big problem I see is not high-lighting our failures, which are few, but dramatizing our successes which are many.

How do you propose that the results of this interesting and intelligent pattern of research, you have described to us, are going to be made available in the field to the State doctors associations, and the State elementary school associations and the International Association of Police Chiefs, and probation officers.

How are we going to get the message across that these programs work, that they improve the quality of public service, that they give marvelous careers to people who are aspiring—how do you and I get the word out?

Mr. BUSHNELL. We feel one of the most effective ways of getting that information out would be for you to authorize us, through the amendment that we are seeking, to use some of the research moneys for the purpose of dissemination of such information. Let me put that in more practical terms.

It means as we let a grant or a contract, we would build into them a strategy for getting that information distributed. It might mean turning to publishers to print and distribute the material. It might mean that we would organize regional conferences to bring teachers and educators together to learn about the new area.

At the moment, it is not an adequate program. I brought along one example of a new publication that is put out monthly called "Research in Education." It provides a listing of all on-going research so those interested in research findings can, through subscribing to this document, keep up with what is being done.

This is linked in with a microfilming program conducted, I think, by Bell & Howell out in Chicago. They simply write in and for a nominal charge can get completed copies of the research back to peruse at their leisure.

These are some of the strategies. They are not enough, however, and this amendment would help us to be much more effective in dissemination.

Dr. WORTHINGTON. It seems to me after the theoretical research has been done if you can use the action research and replicate these studies around the country and get many people in the act trying these and see what is happening in their community, then you will get some action in dissemination.

We are trying to do that in our demonstration programs.

Mr. STEIGER. You indicate in your testimony, Mr. Bushnell, on pages 16 and 17 that there are now a number of divisions for adult educational research projects for subprofessionals in a variety of fields which are not now funded.

Is that correct? DAVR planned research activities have not yet been funded. Is that correct?

Mr. BUSHNELL. That is correct.

Mr. STEIGER. Is there a particular reason why those have not been funded or are you awaiting the passage of the amendment in order to be able to fund them?

Mr. BUSHNELL. The basic reason is that many of these would be funded out of next fiscal year's appropriation. There is about a 4-month lag between the receipt of a proposal, its review and determination of its worthwhileness, and the negotiation of the grant. We suggest that people wanting to secure a grant submit their application early so it can be reviewed in advance of the new appropriation.

We did have a problem in this fiscal year in that our appropriation was limited to $10 million which was about 4 percent of the total appropriation even though the legislation calls for a full 10 percent of the total which would have made it $22.5 million.

We have a number of backlog proposals which we think are worthwhile studies that should and can be funded when that money becomes available.

Mr. STEIGER. Is there some section in the Vocational Education Act of 1963 which prevents you, as it is proposed under 4(c) of the amendment, from disseminating the information?

Mr. BUSHNELL. The way that the legislation is written it stipulates that these moneys be used for research, for development, and for training of vocational personnel. There is no mention in the act of the use of this money for dissemination purposes. Our lawyers have interpreted that it was the Congress' intent to rule out the use of such money for dissemination.

Mr. STEIGER. If that is the case, how did you put together the booklet which you showed us for the purposes of this dissemination?

Mr. BUSHNELL. This is authorized under the Elementary and Secondary Education Act, title IV, which does provide research moneys for all of education and it does, therefore, support this kind of activity.

It does stipulate in that legislation that under the Elementary and Secondary Education Act such money can be used for dissemination purposes.

All we are trying to do is bring the vocational educational research provision into alinement with similar provisions in other acts.

Mr. STEIGER. Dr. Howard, you have given an extremely eloquent and very thought-provoking analysis. Your reputation precedes you throughout Wisconsin, I suspect, among those who have watched some of the work you have done.

I, for one, am glad to have you here.

I wonder if you can, based on your study and analysis, give us an indication as to the program of the Milwaukee Vocational-Technical Institute? Can you tell us what steps we in Wisconsin are taking or can take to help break down the barriers, if any, or what weaknesses are extant at this point in our program so that the development of a better program can be accomplished?

Dr. HOWARD. Thank you very much.

I am delighted at the chance to say a word about the Milwaukee Voluntary Community Council which is a private effort to work in this field. One of the things they have been doing is supplying information principally through the urban league to the high schools in the inner core city. This includes releasing personnel officers from these participating firms to spend time in these high schools providing some information to youth.

In addition, there is a skill plan conducted by this group and a continuing publication on a monthly basis. It is made available throughout the community. These efforts on the part of these private employers has been successful, I want to add, in the blue-collar area.

You make really substantial progress in that area. My remarks were addressed primarily to the difficulties that are in the white-collar field, difficulties that these employers themselves fully recognize and this is why they have so enthusiastically responded to an effort to try to overcome them.

I think we have made important strides in this area in the State of Wisconsin, but there does remain in this white-collar area a great deal that needs to be done.

Mr. STEIGER. Then basically in supporting the proposed amendments of section 4 of the Vocational Education Act of 1963, you are saying that we need to do more in providing innovative programs aimed at what you have talked about from Michigan or New Jersey or the program in Wisconsin and this is the vehicle through which you think you can achieve this kind of program?

Dr. BUSHNELL. Yes.

Mr. STEIGER. Judging by your answer to my last question, your own reactions in this whole field would be that we have lagged behind in technical vocational adult education, in the creation of whatever creative type of program you think can meet the needs that exist in the field. If that is what you are saying, then the concern that I have is the one that I expressed this morning to the Commissioner about what the role of the State department of vocational education is as it relates to the role, and the ability of the Commissioner to provide the funds for the development of these programs.

In a sense what I am asking is whether or not you think we should do what they have recommended—to basically bypass the State departments—or is there a need within each State to develop a better program on a State basis with State approval for this kind of vocational education program?

Each of you might wish to respond to this.

Dr. WORTHINGTON. I think there is a continuing need on behalf of the Federal authorities to help develop the capabilities of State departments of education through title V of the Elementary and Secondary Education Act in other ways than is mentioned under section 4(c) of the Vocational Act.

I believe that the State departments of education should be involved in the decisionmaking in choosing pilot and demonstration projects and I would hope if this amendment is passed that this would be provided for, that the State departments of education and the vocational divisions would be directly involved in making the decisions in helping these innovations.

Mr. STEIGER. Dr. Cook?

Dr. COOK. It was not my understanding that the State departments would be bypassed. It was my understanding as I heard the testimony this morning that they would be involved through the decisionmaking process. I could think of some illustrations, however, in certain instances where perhaps some of these State departments may be having some pressure put on them to get them to think more creatively because this is not a one-way street.

We need to have cooperation from State departments and teacher-training institutions and the school districts themselves to allow some demonstration programs that might not be cut and dried in terms of the images that some people have.

I think this is what I see being attempted—to develop a vehicle here through this amendment to allow some innovations to really take place. Demonstration programs or innovative programs step on toes and the establishment, different kinds of establishments, might be involved; so I think we need to open up avenues that will really allow us to do some innovative things on a demonstration basis to determine their efficiency.

Dr. HOWARD. I would just comment, as we observe the decentralization of the Office of Education, one of the functions of that is to bring the Department into closer rapport with the field. As I read this, this is the spirit of the Office to increase cooperation with State departments.

Mr. BUSHNELL. We have made a decided effort to build within each of the States a capability for monitoring, for developing research, identifying research resources in the State, and carrying out studies that relate to needs of the State.

These have taken the form of what are called research coordinating units.

Some 44 States have responded and have been given grant moneys under the provisions of section 4(c) to move in that direction. We did it with the provision, however, that in 3 to 4 years' time we would phase out Federal support and then they would be self-supported or supported within State authorizations.

Through having this initial seed money, the States have been able to find and recruit quite competent research personnel, build the capability, and now they are selling the need for research to the State legislatures.

They could not have done this, I suspect, in many cases had they not had this initial money to get them started. There are some States where I see evidence that they are not as responsive to some of the emerging educational opportunities and those States need to be worked with in providing new directions to the local school districts in setting up appropriate kinds of training for these emerging occupations.

Other States, of course, are very progressive in this respect and I think Dr. Worthington's remark illustrates one State has done an excellent job in identifying and moving toward these new occupational goals.

It is the old problem of the cultural lag. In some areas they have tended to represent the more rurally based employment opportunities, even though the rural employment has been declining and the opportunities seem to be emerging in the urban areas.

Mr. Pucinski. Mr. Bushnell, I want to check a few things with you before we let this distinguished panel leave. Perhaps the other gentlemen would also like to comment.

In your statement you pointed out that by 1970 you expect 50 percent of the secondary and public school students to be enrolled in vocational programs or some 6.7 million young people. First of all, how do you arrive at that projection?

Mr. Bushnell. This has been based upon some of the recent trends, particularly in the urban areas. Pittsburgh now enjoys a 45-percent enrollment of all high school students in vocationally oriented courses.

I know New Jersey has as its goal, 60 percent within the next 5 years.

Mr. Pucinski. Could you prepare for the committee, if you have such statistics, a table showing what the enrollment is now and the 1970 projection by State if you have that information?

Mr. Bushnell. Surely; I would be very happy to.

Mr. Pucinski. We will put it in the record along with your testimony here today.

(Statistics will follow:)

ENROLLMENTS IN VOCATIONAL-TECHNICAL EDUCATION

	Actual, 1964	Actual, 1965	Provisional, 1966	Projected, 1967	Projected, 1970	Projected, 1975
Total	4,566,390	5,430,611	6,105,838	6,880,000	9,600,000	14,000,000
Secondary	2,140,756	2,819,250	3,061,541	3,500,000	4,525,000	5,500,000
Postsecondary	170,835	207,201	438,469	525,000	650,000	1,250,000
Adult	2,254,799	2,378,522	2,546,452	2,700,000	4,050,000	6,500,000
Special Needs	....	25,638	59,376	155,000	375,000	750,000

Mr. Pucinski. If these figures are correct and I have no doubt that they are, my guess would be that if anything they are probably on the low side. If some of the things we have been talking about here today are carried out and we do succeed in substantially upgrading the whole concept of attending vocational educational programs, I would not be at all surprised if your figures were on the low side.

It would appear to me then that there is considerable justification for the increased authorization as envisioned in H.R. 7380.

I don't see how the States and the Federal Government can accomplish their mission in 1970 which is only 3 years from now, not quite, within the authorization of the existing legislation.

Would you care to comment on that?

Mr. BUSHNELL. The evidence is that many local communities are willing to make considerable investment in vocational education provided they understand—I am talking about parents now—that the kind of training their children would get would not only qualify them for work but would qualify them for advancement in a particular career area. In other words, they would not find themselves ruled out of an opportunity to go on to college or continue their education if they so chose at a later time. If that assurance can be given to parents, I think there would be a much greater willingness to invest through local taxes in the expansion of vocational educational type programs.

Whether that will be sufficient to meet the demand, I am really not prepared to say.

Mr. PUCINSKI. I am sure you are probably as well aware if not more so than I am of the crisis in the local school boards over whether American education is going to continue for some time, regardless of what we do in terms of meeting basic needs.

Frankly, I am not sure how some of these local communities will meet the growing financial needs for education in their communities. That is why I am wondering if it is your judgment, or that of you gentlemen who are down in the huskings on these problems, that you can meet this anticipated or projected enrollment of 1970 of 50 percent within the limitations and authorizations that exist in the current bill, or do you think you are going to have to have the additional cushion of the $400 million that we would authorize after 1969?

Would you want to comment on that, Mr. Bushnell?

Mr. BUSHNELL. Perhaps Dr. Worthington can comment on that more effectively than I can.

Dr. WORTHINGTON. From the standpoint of our State, I don't think the appropriation is adequate. I think the President's panel was conservative in recommending $400 million. It seems to me $400 million appropriated annually would be just a start.

One of the problems in meeting occupational expansion for youth in the 15- to 19-year bracket is lack of facilities. This is a lack of selling construction to school districts.

We know, in New Jersey, 15,000 kids age 17 to 19 will be deprived this year of vocational education because of lack of facilities which could be had for about $70,000.

Mr. PUCINSKI. What would that $70,000 mean in terms of upgrading the whole educational process, in terms of slowing down dropouts?

Is there any correlation between all of this and the fact that you don't have adequate facilities to house those youngsters that would want to be in this program?

Dr. WORTHINGTON. We have demonstrated time and time again in New Jersey that the lack of facilities to increase our cooperative vocational education has prevented us from linking up with more than 4,000 industrial plants and business establishments which are willing to provide work stations for cooperative education. But cooperative education is not the entire answer.

You need the good, strong, institutional types of programs and we badly need facilities. That is one of our really big problems. We estimate we need nearly $150 million of new vocational educational facilities in New Jersey over the next 10 years.

Mr. PUCINSKI. Would any of you gentlemen know if there would be any figures available on similar situations in other States where we would know what is the unmet need of the respective States in terms of vocational educational facilities, such as that New Jersey has had a deficit of 15,000 youngsters that could be and would want to be taking this kind of training but can't because of a lack of facilities?

Does anyone have any suggestion on where this committee could find any information on what is the situation in the other 49 States?

Mr. BUSHNELL. I might address that suggestion to Mr. Venn.

Mr. PUCINSKI. Wouldn't you like to come around and rejoin the rest of the group, Mr. Venn?

Mr. VENN. We do have projections through 1975 from the States on vocational education enrollment at the secondary school level and the estimated number of area vocational schools needed to train these students.

We could provide that for the record and would be very happy to do so.

Mr. PUCINSKI. Would you do that so that we could have a better evaluation of the statistics and the logistics?

(The information requested will be entered in the record at this point:)

(The information follows:)

SECONDARY SCHOOL ENROLLMENT IN VOCATIONAL EDUCATION CLASSES AND AREA VOCATIONAL SCHOOLS, 1966 AND 1975

State	Enrollment			Total number of area vocational schools		
	1966 provisional[1]	1975 projected[2]	Increase	1966 estimate	1975 projected need[2]	Increase
Total	3,061,541	5,904,725	[3]2,908,300	1,074	1,908	834
Alabama	74,351	99,951	25,600	44	64	20
Alaska	3,811	5,811	2,000	1	5	4
Arizona	27,341	39,341	12,000	9	14	5
Arkansas	48,566	68,566	20,000	17	17	--------
California	223,591	623,591	400,000	90	147	57
Colorado	20,816	76,816	56,000	5	14	9
Connecticut	24,646	42,446	17,800	25	33	8
Delaware	15,370	35,370	20,000	3	8	5
District of Columbia	4,180	(4)	------------	6	6	--------
Florida	110,240	150,240	40,000	13	34	21
Georgia	91,876	136,876	45,000	23	45	22
Hawaii	8,391	(4)	------------	5	5	--------
Idaho	15,990	17,990	2,000	5	6	1
Illinois	100,080	500,080	400,000	10	93	83
Indiana	53,009	69,509	16,500	11	23	12
Iowa	33,547	213,547	180,000	15	18	3
Kansas	20,971	35,971	15,000	12	16	4
Kentucky	59,164	82,164	23,000	34	55	20
Louisiana	68,872	105,872	37,000	32	43	10
Maine	5,934	17,934	12,000	9	24	15
Maryland	106,203	123,703	17,500	43	43	--------
Massachusetts	84,913	98,913	14,000	40	40	--------
Michigan	138,380	193,380	55,000	33	65	32
Minnesota	55,498	78,498	23,000	26	30	4
Mississippi	55,535	65,535	10,000	15	17	2
Missouri	64,503	74,503	10,000	32	44	12
Montana	8,462	10,962	2,500	2	5	3
Nebraska	22,018	30,518	8,500	7	9	2
Nevada	7,955	19,955	12,000	2	4	20
New Hampshire	6,479	16,679	10,200	15	35	20
New Jersey	52,602	109,602	57,000	32	53	21
New Mexico	16,149	21,149	5,000	3	10	7
New York	315,162	510,162	195,000	35	80	45
North Carolina	144,199	231,199	87,000	43	100	57
North Dakota	11,522	15,522	4,000	1	6	5
Ohio	88,974	238,974	150,000	37	106	69
Oklahoma	55,103	65,603	10,500	7	15	8
Oregon	24,739	54,739	30,000	16	38	22
Pennsylvania	123,841	233,841	110,000	23	54	31
Rhode Island	4,893	12,893	8,000	5	25	20
South Carolina	62,889	82,889	20,000	28	40	12
South Dakota	10,275	13,475	3,200	5	8	3
Tennessee	78,244	99,244	21,000	22	25	3
Texas	190,845	365,845	175,000	92	144	52
Utah	29,305	47,305	18,000	8	8	--------
Vermont	11,454	18,454	7,000	11	14	3
Virginia	95,335	235,335	140,000	46	116	70
Washington	58,602	239,602	180,000	25	27	2
West Virginia	34,023	94,023	60,000	12	22	10
Wisconsin	34,317	165,317	131,000	19	30	11
Wyoming	5,831	15,831	10,000	2	7	5
Guam	273	(4)	------------	1	1	--------
Puerto Rico	50,354	(4)	------------	15	15	--------
Virgin Islands	1,913	(4)	------------	2	2	--------

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[1] Based on annual reports from the States.
[2] Projections submitted by the States.
[3] Does not include increase for States not reporting.
[4] Information not reported by the States.

Mr. Pucinski. Dr. Wilsey, would you like to comment on that? The question I am raising is that in H.R. 7380, we are recommending that for fiscal year 1969 we increase the authorization to $400 million. It is my sincere hope and prayerful hope that Vietnam is going to be behind us by then.

It is my hope that we are going to be able to start meeting some of the unmet needs of the country that we have had to slow down because of Vietnam. Do you feel that increasing this authorization to $400,000 would significantly help the States or is it too much?

Dr. Wilsey. Based on our experience which is not national but is within individual States and individual school districts, I would say this would be very helpful and probably is not enough in terms of looking at this one study I have cited, the statewide study of needs in Indiana; we laid out a long-term plan for the development of vocational technical training there that would move gradually toward meeting a higher percentage of the presently unmet needs of 25 percent to about 60 percent of these unmet needs within the next 15 years.

But we saw there a limitation not just of money but a limitation in terms of teaching staff, of facilities, and all of the elements that are essential to effective teaching, so money is the beginning ingredient of this but this is not the total necessary to meet these requirements.

Mr. Pucinski. That is why, Dr. Wilsey, you will note the fact that 7380 also provides for greater degree of training of teachers. It was stated earlier today that perhaps title V of the Professions Act would do it but I don't think it will.

I think that unless we establish a positive direct program specifically earmarked for this purpose, our training program in training vocational educational teachers for this great need we see in 3 years is just going to get lost in the shuffle.

We know how these things have gotten lost in the past. It is something that I feel we ought to deal with here in this bill and that is why we put it in the bill.

I was wondering if some of you gentlemen who are experts in this field would like to comment on that.

Dr. Howard, would you care—excuse me, I interpreted Dr. Wilsey. I asked you first. Do you think we ought to have this program for training teachers right here in this bill and specifically earmarked for this purpose?

Dr. Wilsey. My fellow panel members are much better equipped to answer that than I. Just based on—we would say the shortage of teachers is a much greater deterrent at this point in terms of a rapid buildup than funds or facilities.

This is a critical factor in the total.

Dr. Cook. As a teacher-educator, I would like to respond to that. I believe we must have support in the preparation and retraining of vocational teachers. Let me give one illustration.

Technologically speaking there is not much need for bookkeeping at the high school level, but practically these teachers would serve a great function or great opportunity for these teachers to be retrained to be teachers of business data processing, and we do have the need and the resources, but we do not have the financial funds to do this and we need it drastically.

Dr. WORTHINGTON. One of the greatest needs we have is for vocational teachers. Our own State, our division of higher education recently completed a study in New Jersey for teacher needs for the next 10 years. The No. 1 priority was vocational education.

I would be most happy to provide you a copy of that study done in New Jersey.

Mr. PUCINSKI. We would like to see that, Dr. Worthington, simply because I am sure it would help fortify our own position in trying to look ahead. I can't think of anything that would be more of a tragedy than to have young people wanting to go into vocational educational programs, which is a very practical approach to laying out their career, and be held up simply because we don't have the trained personnel.

I would like to see that study if you would be good enough to forward it to our committee. We would be very grateful.

Dr. HOWARD. I am not really in a position to make any overall State estimate but I know the requirements in the inner city are great; how great, I couldn't venture to say.

My general reaction is the vastness of the need should command commensurate resources.

Mr. PUCINSKI. I gather from your statements here today, gentlemen—and I can appreciate the fact that Mr. Venn and Mr. Bushnell might want to withhold judgment on this until some policy decisions are made within your own agency—that this $400 million recommended by the Presidential Commission in the first instance is not out of line, is not excessive and, as a matter of fact, I get the impression that it is something that we really ought to press very hard to get.

Also, on the earmarking of these funds specifically for teacher training. Am I correct in that assumption?

Dr. WORTHINGTON. Yes; I would agree with that entirely from the point of view of our statement.

Mr. PUCINSKI. One other question that has come up, Dr. Bushnell, is that we are told business and industry provide a good deal, if not for the most part, the training programs and the training facilities for vocational education. Yet so much of the Federal Government's programs seem to be centered in higher education.

Why is that? I am not quite sure I understand that.

Mr. BUSHNELL. Two basic reasons. Much of the research in education has traditionally in the past been carried out in universities. I think the basic reason for that has been the inability of the Office of Education to contract with profitmaking firms. This is why we have asked for the amendment so that we might reach into this tremendous resource and tap the knowledge and the insights that industry has in preparing its own personnel for new jobs and also in preparing its customers to accept and utilize new equipment.

Mr. PUCINSKI. It would help me a great deal, and I know it would help the other Members of the Congress, if we could suggest something revolutionary to you people. That is, if you could give us the guidelines that probably you are going to publish in the Federal Register for these programs after we pass the legislation.

I think that it would certainly help us and help you avoid much of the necessary redtape and pitfalls that invariably slow up these programs.

One of the things that I despair is that so frequently we will pass legislation here in good faith and we have excellent witnesses like yourselves who come here and guide us and help us along.

Then after the bill is passed and the agency sets down the guidelines for implementing the bill, too often any similarity between what we thought we were doing and what really is done is strictly coincidental.

A question came up like it did today and it was asked several times—and I think that Commissioner Howe cleared it up—but the question is of contracting out to a private, profitmaking institution. If I understood correctly Mr. Venn and Mr. Bushnell, this could be done if the amendment is adopted, the basic contract would go to the State or to a not-for-profit private agency but then that private nonprofit agency or that State agency, if they felt there was some value in the profitmaking component, could issue or award a contract; is that correct?

Mr. **Bushnell.** That is correct. It becomes quite complex administratively as you try to tap into that resource.

Mr. **Pucinski.** The way we ought to pass legislation around here is to have you people not only bring us the short form but bring us the long form on what you are going to do under this legislation after we vote it out of the committee and through the Congress.

Would you agree with that?

Mr. **Quie.** I am all for it.

Mr. **Venn.** I would just add that sometimes we find it difficult—there is not always agreement among the Congressmen on the intent and we run into that problem on occasion in trying to write guidelines.

Mr. **Quie.** We probably would find out easier if we were able to ascertain your intent.

Mr. **Pucinski.** Sometimes the English language can be very difficult in trying to communicate ideas—you are right. We here in this committee have very frequently very strong, differing views and after the bill is passed many members have different ideas of what it was that we did here in the legislation. So I can appreciate your problems.

As we go into the revisions of this Vocational Educational Act, I get the feeling there still remains a great deal of feeling among educators in this country that somehow an overemphasis on vocational education is wrong.

They take the position that a child ought to have a good, well-balanced general high school education and then try to seek his or her specialties in an extracurricular activity.

On the basis of your own experience with this whole subject, is there any merit to that concept or should we recognize the fact that certain youngsters are interested in doing certain things and we ought to help them get going on their vocation, trade, or skill as quickly as possible.

What is the feeling of you gentlemen who live with this problem day in and day out?

Suppose we start with you, Dr. Bushnell.

Mr. BUSHNELL. I might say this is an academic debate that dates back to the early 20th century. The position that has evolved perhaps more recently, building on some of John Dewey's theories, is that too much emphasis now in the schools, particularly at the elementary and secondary level, has been on what we would call "verbal reasoning skills," being able to read and write effectively.

Many students may not have that skill or capability, particularly students from disadvantaged backgrounds where conversation and books are not very extensive in the home, where there are no books and little emphasis placed on reading.

We are discovering many more effective ways of reaching these students by visual means, by job training-type experiences, manipulative experiences where we can begin to lead them into the more complex reasoning skills that are probably necessary for all of us to have if we are going to readily adjust to the modern society.

Mr. PUCINSKI. Assuming what you say is correct here—and I am not prepared to challenge this—our colleagues on the minority side have suggested that we have residential skill centers in lieu of Job Corps.

I am not prepared at this time to debate this point with them, but it just seems to me that the residential skill center is a fine institution, it is in our bill and we are proposing putting a lot more money into it for the youngster who has the basic ability to comprehend the skills you are trying to teach him.

What you said a moment ago is correct. The youngster we frequently get in the Job Corps is nowhere near at that plateau of intellectual capacity to absorb what we would normally be teaching youngsters in a residential vocational skill center.

Would you care to comment on that?

Mr. BUSHNELL. My opinion would be both a residential center and a skill center offering the same kind of opportunity where you would hopefully individualize the instructional fare for the student whatever his level of development in reading and writing and computational availability so he could be brought along to the maximum achievement level with the kind of experiences which are reinforcing, really making him feel like he is a capable student and at the same time he is being motivated to go to greater depths.

Mr. QUIE. I think you are right when you talk about trying to accomplish the same thing. What I have observed of vocational schools is that you can reach these same young people. I was particularly impressed by one in Milwaukee, Wis., and by visiting with Dr. Harkness.

Out there they have an out-of-school program for children, both male and female, ages 16 and 17; they have 650 in school, as I recall, and 550 of them were on parole, so I am aware of the types of disciplinary problems you would have with individuals like that.

They are dropouts who are tough to reach.

I was also impressed by the statement that 85 percent of those who had completed training were placed in jobs using the skills that they were trained for. You mentioned those who completed training, those who come in at 17. When they are 18 they move into a manpower and development training type of program so to me this is proof of what can be accomplished.

Dr. **Worthington.** May I add the comment that New Jersey did a statewide study which was released in 1964 relating to the needs of vocational education for our State. At that time it was revealed that more than 70,000 young people in the age bracket of 16 to 21 were neither in school nor working.

At the same time, the Labor Department said we had more than 80,000 unfilled jobs. A random study of these individuals indicated the majority of these were high school graduates who do not have saleable skills, who had not been able to go to vocational schools because of the lack of adequate facilities in our State.

I believe, in fact I know, at least 40 percent of the kids in our schools in New Jersey are going to make themselves available for the labor market when they either drop out or finish high school.

We hope we will be able to give them salable skills. We know the boy or girl has a goal in life, whether it is to be a carpenter, nurse, or auto mechanic, will get more out of high school than the young person going through in the general curriculum, the middle 60 percent get thrown in a general curriculum which really means nothing.

Mr. **Venn.** I would like to comment that I think there has been a longstanding concept that vocational education was one thing and general education was another.

It was an either/or kind of choice for young people. This, I believe, is what Dr. Bushnell and this panel have been talking about. This is not really true today for the direction of vocational education is changing. Today the high school student can choose, as a part of his total education, a vocational program which will give him saleable skills. During his course of study, if he should realize that he has made a wrong choice, he can move into another area of training better suited to his interests and ability. New programs resulting from demonstration projects such as proposed in the amendment would give the student still more options.

We have what might be called a cost-effectiveness situation. We must decide whether to invest more of the public's dollars in a preventive and developmental program now to keep the youngsters in school or whether to pay the greater cost of a remediation and correction program to reach the dropouts and prepare them for the labor force.

Mr. **Pucinski.** I think the whole poverty effort is certainly demonstrating the wisdom of that decision. We have already spent some $4 billion and we are going to spend many, many more billions of dollars.

It would seem to me that the poverty program just emphasizes the high cost of neglect in the past. I am hoping this generation will not have the same problem. That is why we are trying to beef up this vocational educational program.

I think, frankly, it is in this program that we can find many of the answers and the alternatives to another multibillion-dollar antipoverty program in 1980 or 1990.

Mr. **Venn.** I think we have to. From the first grade on we have youngsters who are potential dropouts. We must make the effort to see that these young people do not find themselves 6, 7, or 8 years from now in that situation.

This is the kind of problem which is not too evident in the fifth-grader, but unless something is done at that time to begin to give him some direction and options, then the only alternative left is a corrective program.

I think we would certainly agree, Mr. Chairman, with your position.

Mr. Bushnell. I would like to make just one brief comment. I think we now know how to organize our educational programs effectively to reach a variety of students with a variety of abilities, interests, and backgrounds.

What we are engaged in at the moment is trying to determine ways in which we can make that variable pattern available to large and small communities, large and small school districts.

There are many excellent examples now available and I am hoping through a 4(d) type of program examples of these models can be disseminated throughout those States that might not be aware of them or have an opportunity to test them in their own setting.

Mr. Pucinski. What do you think 4(d) needs to have you do the job that you all envision? What would you need that you don't have now?

Mr. Bushnell. If I understand your question, do you mean in terms of authorizations, not dollars, to implement these programs?

Mr. Pucinski. Is money the only big obstacle that you have? Do you think the program is now sufficiently well oriented and you have the options and you have the wherewithal? That is the only problem you have?

Mr. Bushnell. It is both money and the authority for the States to become engaged in experimental innovative efforts.

Mr. Pucinski. What would happen if this $30 million that we are suggesting here for demonstration projects was just added to the general sum that is available?

Do you think that the States would now have sufficient latitude to fund a demonstration fund? Do you think the money has to be specifically earmarked for that purpose in order to achieve the goals you are hoping it will?

Mr. Bushnell. I know the Commissioner and Mr. Venn commented on this this morning. Unless you identify this money for the purpose of supporting innovative efforts, the States would be under pressure to use it to offset the high cost of education within those States.

Mr. Pucinski. The question has come up, Mr. Bushnell, that we are talking here about an educational program that the President hailed the other day on its 50th anniversary message. So this is not a field that is as new as for instance title III and ESEA, which is sort of a new thing that we are in?

While I don't want to sound at the moment like I am criticizing it, I feel that this committee is going to have to have some more compelling arguments to justify an expenditure of $30 million in demonstration projects in a field of education that is 50 years old.

Perhaps it is entirely probable that even those programs that are 50 years old need modernizing and revitalizing—and you might have an excellent suggestion here—but I think we are going to need a little more evidence when we go to the floor of the House on this concept.

Mr. Bushnell. I am sure that we could provide some very good models for the States to emulate if there were more money under

4(d). We know enough about the problem of dissemination and change in education today to suggest that the most effective device for getting new ideas picked up and put into practice in a local school district is to be able to see it in operation in a nearby school district, one that might potentially take on the program.

Mr. Pucinski. Under your plan, each of these projects would be an ongoing project and producing youngsters?

Mr. Bushnell. It would be an on-line demonstration effort.

Mr. Pucinski. You are not contemplating using this money for a lot more surveys and studies and things of that nature but rather ongoing demonstration projects which have youngsters involved where you can test innovative ideas and come up with some specific answers. When the youngster is through with his experience in the project he comes out of there as a trained individual.

Am I correct in understanding that?

Mr. Bushnell. That is correct.

Mr. Quie. You could do that in 4(c), could you not? There is no need to pass title II, is there, to accomplish demonstration projects?

Mr. Pucinski. I understood you to say, Dr. Bushnell, what has been happening every time you want money for demonstration projects there is a tendency to absorb that increase in the operations and the demonstration projects are sort of lost by the wayside.

Mr. Bushnell. No; what I was attempting to say is that as this money is turned over to the States, they are pressured by the local districts to use those funds for general programs.

Section 4(d), as I understand it, would earmark funds for the States to support innovative efforts. This is in contrast to what the research program is attempting to do under 4(c) where we are supporting innovative experimental programs of national significance in such a manner that they could be replicated in other areas once the success of that program has been demonstrated.

We know also a number of our experiments will fail. This is the very nature of research and we therefore hope that this funding can be preserved for experimental research efforts of that type.

It is quite different from going ahead with an action demonstration effort where you are putting a new program into a school and actually turning out graduating students from the program.

Mr. Venn. Results of the research that has been done and the evidence gathered from the States about the major problems facing the schools and vocational programs could be combined to develop demonstration programs in each State focusing on the needs in that State. They would be operational programs in the sense that students would be prepared to enter the work force when they graduate.

It would be analogous to manufacturing companies which have both research and development departments to first find evidence of what is good and then put the results into operation in their plants. The demonstration projects would have the specific function of developing good programs to be put in operation in local school districts throughout the States.

Mr. Quie. Under 4(c), the money is to be used not only for research and development training programs, but pilot programs, and so on. So wouldn't pilot programs be of the same nature as demonstration programs?

Mr. VENN. They would be of similar nature. I think, however, of a pilot program as a single, national research project to explore the most difficult problems and demonstrate how they can best be solved; to investigate new areas of need or training and develop programs to focus on these areas. The next step would be demonstration programs in each State adapting the results of the pilot project to their local problems. The last phase would be operating programs in the local school districts.

Mr. BUSHNELL. The greatest need now that research results are coming in, and in that I include the pilot efforts that we have supported which are unique and one of a kind throughout the country, as these results come in and as successes are achieved, we would like very much for the other States throughout the country to take on that particular project and attempt in their own bailiwick to make it relevant to their needs and program activities.

If I may give an example, we supported the Washington School of Psychiatry in Washington, D.C., in attempting to work with a group of parolees.

These were lads from 16 to 19 years of age who could not qualify for a Job Corps center because they had prison or police records and, therefore, were put into a special program and worked with individually.

Some attempt was given to make the learning situation seem as if it were an employee-employer relationship which it was felt they would respond to more than if it had been the traditional type of classroom environment with a teacher-student relationship.

We are now attempting to get the District of Columbia public schools to pick up the program and phase out the Federal support. I think that has relevance to other large urban settings and unless there are some moneys available in the States to pick up these innovative programs and get them replicated, they are not likely to be built upon.

Mr. QUIE. The chairman was talking about the difficulty with the English language in the bills being passed. I will take page 10 of your testimony and try to find out what the jargon means.

You are talking about the Job Corps, which is an area I am particularly interested in. You say the Job Corps centers have provided an excellent opportunity for designing learner-centered programs.

Now, are not all of these programs learner-centered?

Mr. BUSHNELL. I apologize for one jargon. This is one of the problems of being in research—you develop your own language.

Mr. QUIE. I find it does not go very well on the floor of the House.

Mr. BUSHNELL. We have seen much evidence of teacher oriented instruction in the classroom where the teacher will direct the discussion and provide through lectures the information to be learned.

What we are suggesting here is an attempt to understand the individual needs of the students more effectively in using teaching devices that do, in fact, allow the student to participate in the learning process at his own rate, that will allow the student to self-pace himself as he progresses in the particular subject area, that in effect builds upon his readiness to learn and level of understanding, permitting us to avoid the assumption that all students in a classroom are at an equal level of preparedness.

Mr. QUIE. Did this prove quite unsuccessful in the Job Corps?

Mr. Bushnell. There have been some examples which have been quite successful in relating effectively to student needs.

Mr. Quie. I was interested in Camp McCoy, where the University of Wisconsin decided to withdraw some of its participation. It is going to limit its personnel to training because there is going to be a shift away from that and a shift to more discipline.

I was wondering if this was carrying it through. Did this mean it was unsuccessful or is this a new venture?

Mr. Bushnell. I am not familiar with Camp McCoy.

Mr. Quie. Let's go on to the next one. You mention these learner-centered programs, in which you say the student or enrollee will have the dominant position rather than the instructor, and will be independent of many of the traditional restraints.

What are the traditional constraints in the public schools, vocational public educational schools that are not in the Job Corps camp?

Mr. Bushnell. I would say many of our schools tend to reinforce middle-class behavior. This, I feel, of course, is desirable behavior but students from disadvantaged backgrounds frequently do not behave in ways teachers who have been trained to work with middle-class students like to see or relate effectively to, and they don't reinforce the child who is disruptive.

They see him as blocking the progress of other students in the classroom situation. The situation is: How can we break out of that traditional learning situation into some other arrangements that would allow you to take on the student who is disruptive and give him the kind of learning experience that will keep him from being frustrated and unable to relate effectively to the teacher or his peers in the classroom, a situation where he can begin to show some progress and develop some competencies and efficiency as an effective learner?

Mr. Quie. Is this working well at all?

Mr. Bushnell. It is working well in a number of experimental pilot programs that I could identify. In Bedford-Stuyvesant, New York, we have an interagency effort underway with some OEO money, with Department of Labor money, and Office of Education money, to support a residential school in the inner city area of Bedford-Stuyvesant which is designed for this group of students and provides a totally new orientation.

It is being done in a YMCA, not within the public school setting. There is a good deal of interest and involvement of public school personnel in looking at this experiment, and success to date is quite startling.

We would like to build on this now and take that model and transpose it into the public school program in that area.

Mr. Quie. Do you think that special recognition of students in some model program or some experimental program makes for success because students like to be identified?

I recall when I was in high school our instructor telling us about a study they made in training stenographers, one group where they had quiet typewriters, didn't make any noise, and the other ones where they had noisy ones. Both groups increased their proficiency and they went back to the original ones trained the old way.

Mr. Bushnell. There was obviously some value derived from the experiment.

Mr. Quie. What does this prove?

Mr. **Bushnell**. How can you build that type of recognition into a typical classroom? It is the problem of getting teachers oriented in such a manner that they are willing to accept what we may call deviant behavior in the classroom or to understand why that particular student is being disruptive. Hopefully, they can be taught to cope with it more effectively.

Mr. **Quie**. If the class is being told they are watched as an experimental class you also have the same results.

Mr. **Bushnell**. A good term for that is the "Hawthorne effect."

Mr. **Quie**. You talk about the Job Corps education planners. Is that supposed to be your children and mine?

Mr. **Bushnell**. Not only your children and mine but, hopefully, children from disadvantaged backgrounds.

Mr. **Quie**. Are those the economically self-sufficient and adapted?

Mr. **Bushnell**. I would say through the kind of educational experience that the Job Corps centers are attempting to design—and I am not saying they are all successful—they are leading to the kind of self-sufficiency that will create with the graduate from the Job Corps program the desire to work, the desire to continue with his education so that he can qualify for a higher level of income, and the desire really to be accepted as a member of a middle-class society.

Mr. **Pucinski**. I would like to call to the table Dr. Howard Matthews, Director of Development of Manpower and Training in the Office of Education.

Doctor, would you want to pull up a chair and get into this panel discussion here?

Mr. **Quie**. Then you go out and say he not only needs the basic educational skills but he needs to know about the workings of our society and his role in it.

Wouldn't a residential school tend to limit the ability to teach a young man or woman the workings of our society and his role in it? If at all possible, it would be better if they were in a day school operation.

Mr. **Bushnell**. Here, I can only give you my personal opinion. I would say to remove a student from his natural environment, from an inner city area to a rural area is perhaps not as productive as to keep him in his home area, provided you can involve him in successful learning experiences and can begin to give him a meaningful role in society and enable him to understand what the world of work is all about, help him to explore such experiences for himself and begin to build a linkage that does not now exist for him or other inner city kids.

I think Dr. Howard commented on this rather dramatically a short while ago and perhaps he or Mr. Matthews may want to elaborate on that.

Dr. Howard, do you want to comment on that?

Mr. **Quie**. Mr. Bushnell moved into my next question. One, would it be better to leave them in the day school operation if at all possible in order to continue working with them in a home environment. Secondly, if it is necessary to move them to a residential school for need of a change of environment, is it better to do it close to a large city rather than putting them out in the country?

Would it not have been better to do this in Milwaukee rather than putting them out at Camp McCoy, where the closest town is Sparta, and again there isn't a Negro in Sparta? Where would they find the young girls they are interested in?

Dr. HOWARD. An effort was made to surmount this problem in Milwaukee. The facilities we thought were available did not become available. I think it would be desirable to have a residential program in an urban area. There are a lot of resources available in that setting.

I think for a number of youngsters it is very beneficial to get them out of their environment at least for short periods of time. We worked for the last couple of years with low achievers in a central city school and brought them onto the campus at the University of Wisconsin in Milwaukee for the summer.

In that setting it has been possible for us to do a great deal more than I think would be possible in a day setting. So, I think at least for a period in the lives of these youngsters there are distinct advantages in a residential school.

You will find a youngster who has not had a chance to sleep in a bed by himself. That is a pretty debilitating kind of experience but you come onto the campus or go into a residential facility and he can have three square meals a day, a recreational program in the evening, and take advantage of a whole range of resources he has not known about.

Mr. QUIE. If he had the mental capacity he would move into it for his higher education. I wonder about sending them out to the mountains, having them adjust to the mountains, and then bring them back to the city and have them adjust there.

Mr. PUCINSKI. I would like to thank you, Dr. Howard and Dr. Worthington for your contribution here. Your testimony has given us a better insight into the problems of the program.

I want to thank you gentlemen. I hope I didn't upset your schedules too much by delaying you as long as we have.

Mr. QUIE. I would like to thank you, too.

My colleague, Mr. Goodell, asked me to say that he is very sorry that he could not be here this afternoon. He wanted to hear your excellent testimony but was called away.

Thank you.

I would like to ask just one more question on this jargon.

You go on a little further and you say that he needs several career strategies in order to operate. What does "career strategies" mean?

Mr. BUSHNELL. I think he needs to be aware that the first job he takes may not be the last. If he has aspirations of achieving a higher level of income, several career strategies will help him think through how he can get there.

This may mean that he might take an elevator operator's job in order to have time available to study if he is enrolled in an evening program. Completing that program then would qualify him for something in the way of higher responsibility.

He thinks through the fact that the first job can lead to several higher levels of earning power and responsibility, and perhaps a more satisfying working career.

Some of our efforts in the past in vocational education, I suspect, have been to train a man for a given trade or occupation and not try to help him think through where that would lead if that job is phased out and he has to go into some other occupation.

Mr. QUIE. One last question: Is Dr. Wilsey involved in your program?

Mr. BUSHNELL. No, he is a subcontractor with the Indianapolis Hospital Association. They have a grant from us plus their own funds and they in turn use their own funds with Booze, Allen & Hamilton, a consulting firm.

Mr. QUIE. So now you have to do it through an organization?

Mr. BUSHNELL. And the administrative restraints on that are rigid. They can't subcontract more than 50 percent of the grant to the subcontractor.

Mr. PUCINSKI. I have had some complaints about getting some of these projects approved and some of my people even think there is some favoritism being shown in how they are awarded.

Can anything be done to break through the delays?

Mr. BUSHNELL. I think that problem has been remedied. The major delays experienced were during that period when the Office of Education was in the process of reorganization and my division was moved from one bureau into another bureau and it took some months to work out the administrative procedures to process proposals through.

On the matter of favoritism, we rely very heavily on outside experts. Normally, we would use five or so experts to review a given proposal and it is their recommendation that we follow then in deciding to fund or not to fund a particular project.

Mr. PUCINSKI. How big a role does the USES play in dovetailing their activities in the whole educational program? Do we have substantial help from them?

Looking downrange?

I read some testimony earlier, but do we have a sufficient tie-in with USES and are they adequately geared to give you some guidance on what are going to be the job needs of a community in the next 5 years?

Mr. VENN. Frankly, I do not think there is as much cooperation and coordination as there should be on either side. I think it is fair to say, Mr. Chairman, that people from the Department of Labor have told me they have a funding problem. This could account for some of the difficulty.

I hope that if the title II amendments are passed and the schools become more involved in the transition of students from school to work, that a very close working relationship will be developed with the Employment Service. Schools will need the information and services available from USES and, in many cases, will need youth employment people working right in the school to help on initial job placement for the students. If we can develop this type of cooperation we can accomplish much more than we do at present.

Mr. PUCINSKI. I often felt the one weak link—because I think it applies to vocational education and many of the programs in the poverty program—is that you find at the end of the line there isn't a job waiting—it is probably the greatest single weakness in all of these programs.

We have a lot of things set up and we do a lot of things—whether it is upgrading skills or in retraining people who automate out of a job or whether it is taking young people in school and putting them through a vocational educational training program—this is why I ask the question about the USES.

And in my judgment—and I don't want to sound critical because this is a feeling I have, and if somebody has any information to the contrary, I want to be the first one to find out about it—I can't help but feel USES is really not doing the job that it ought to be doing and maybe Congress ought to look into the reasons.

I would think USES would be the arm of Government that would have the facility for you to hand off the finished product that you have trained and USES could guide that youngster or person into a job.

I don't think that is being done to any great extent. I think the USES has become a great bookkeeping operation, letting the private agencies handle the bulk of the work. Whether that is by design or accident, I don't know at this time, but here is where it seems to me that the USES should be working a great deal toward more dovetailing into your operations.

I don't think that they really are.

Mr. VENN. I agree with you 100 percent that this concept of job placement for the youngsters when they finish their training is fundamental to the successful operation of these programs in the schools.

We have counseling and guidance programs for the college-bound youngster and job counseling and placement services for all Ph. D. graduates and baccalaureate graduates. I think we have to do it for these other youngsters, too.

This is going to require a very close working relationship and I hope this amendment will help to develop it.

Mr. PUCINSKI. You are absolutely right. Is there anything we can do in this legislation or is there anything we can do as members of this committee that would bring this whole operation into sharper focus because you are absolutely right?

We go out of our way to set up all kinds of job counselors or whatever you call them, for the young people getting out of college. Almost every youngster by the time he is 2 months away from graduation, can almost tell you precisely where he is going, how much he is going to earn, who he is going to be working for, and everything else. I don't see it in this category. It again proves what I said when we started this hearing, that vocational education in this country has been treated like a stepchild.

Mr. VENN. One of the criteria for these proposed demonstration projects will be that they include specific programs to show how this can be accomplished. Guidelines for these programs will be developed in terms of our third objective; namely, intensive occupational guidance and counseling during the last years of school and initial job placement.

As these programs develop in school districts throughout the States, I think cooperation between the schools and USES will grow so that in time all of the youngsters will be benefited by such services.

Dr. MATTHEWS. I would like to comment on two things, Mr. Chairman: As we know, under the Manpower Development Training Act, the law specifies that there must be reasonable expectations of employment before you can develop a training project.

So the extent that the employment service is able to indentify employers on jobs and advisory committees are used in industry to help to do this type of thing, there are job opportunities.

But the second point I would like to make regards the sophistication of both the trainee and the kind of employment he is going into, which has an awful lot to do with who ought to place him on that job.

As we attempt in manpower, for example, to treat the problems of the disadvantaged and to get more employment opportunities and training skills for these types of people, you will find more and more the employer wants to talk with the teacher.

He wants the person who saw him perform at the job or at the training site to counsel him on the employability of that trainee.

He is very reluctant to go to a counselor who could only give him secondhand information about the involvement of the trainee with the teacher.

So, the most successful skill centers we have in MDTA are where it is a team function or where the teacher is sitting with the 6 MDTA counselors on the team.

There is not a school district sign on the door and they work it as a team function.

Mr. Pucinski. To what extent do we use these counselors in our educational programs? Do they have that close tie-in, also?

Mr. Venn. I would think it is very sporadic, though we do have this to a large extent in some places. For example, in the Milwaukee vocational schools and in northern California.

But there is no general pattern. I think basically this is because the schools have never been seen as having any responsibility in this area in the past.

The schools' job has been to teach them, to mark them, and to counsel the college bound. They have never been given that responsibility for all students.

I am hopeful that this amendment will give it.

Mr. Pucinski. You are putting a lot of confidence in this amendment. If anything, I don't think $30 million is even going to begin to do all the things that you gentlemen have said would be done with this particular amendment, so I think we will have to take a harder look at the realities of this thing.

I am very grateful to you for taking all of this time. I am sorry to have tied up your afternoon this way, but I think the testimony today certainly dramatizes the extent of this problem.

More importantly, I think it points up the tremendous opportunity that is available to this Congress and to the American people in doing something in this field.

When you look at the entire day's testimony today, one thing stands out: I don't recall whether it was you, Mr. Venn, or you, Mr. Bushnell, who brought out the fact that our highest rate of unemployment today is among the young people between the ages of 18 and 25.

The thing that Dr. Worthington put his finger on, when he pointed out that in his own State a survey showed that 70,000 youngsters 16 to 18 were unemployed, was because they didn't have salable skills.

When you take these figures and take these facts, you project them across 50 States and you begin to see why we have problems, why we have people on relief, why we have poverty, why we have broken homes, and a lot of other things.

So, I look upon this legislation before this committee today as a tremendous challenge.

Vocational education has been sort of a stepchild and we are going to see if we can pull this committee together and come up with some answers that will improve on the fine work done by the chairman, Mr. Perkins, in this field last year and by this committee in 1963 in getting into this area of education.

I want to congratulate you all for your very fine testimony.

The committee will stand adjourned until 9:45 tomorrow morning.

(Whereupon, at 5:45 p.m., the hearing was recessed to reconvene at 9:45 a.m., Wednesday, April 13, 1967.)

VOCATIONAL EDUCATION IMPROVEMENT ACT AMENDMENTS OF 1967

THURSDAY, APRIL 13, 1967

House of Representatives,
General Subcommittee on Education
of the Committee on Education and Labor,
Washington, D.C.

The subcommittee met at 9:45 a.m., pursuant to notice in room 2175, Rayburn House Office Building, Hon. Roman C. Pucinski presiding.

Present: Representatives Ford, Hawkins, Mink, Goodell, Scherle, Dellenback, Steiger, and Ayres.

Staff present: Margaret Sugg, director, and Mattie Maynard, clerk.

Mr. Pucinski. The committee will come to order.

This is the second day of hearings on amendments to the Vocational Education Act of 1963.

We are pleased to have with us this morning Dr. Elizabeth Simpson, president of the American Vocational Association, and a professor of home economics at the University of Illinois, Urbana, Ill.

Dr. Simpson will head her panel, which includes Dr. Byrl Shoemaker, Mr. Philip W. Seagren, Mr. Everett Hilton, Dr. George Brandon, Miss Catherine Dennis, and Mr. Lowell Burkett.

Of course, Dr. Simpson, I would like you to introduce your panel members individually for the committee this morning and we would like to welcome all of you.

I think it is apparent from the testimony yesterday, headed by the Commissioner of Education, that we have a tremendous opportunity in this committee, in this Congress, to make a significant contribution toward upgrading and improving the vocational educational system in this country.

I think we can all agree that the keystone of eliminating poverty and improving conditions for all Americans is through education.

Yesterday we had testimony that by 1970 50 percent of the school students, the secondary students attending American public high schools, will be engaged in some form of vocational education.

The estimate is that by 1970 we will have 6.2 million youngsters taking some form of vocational education training.

These figures being what they are, and I have no doubt that they are correct, indicate to us the tremendous job that lies ahead for this Congress in making sure that in the brief 3 years—actually it is less than 3 years—when we have this avalanche of youngsters attending vocational schools, the upper echelon of education can meet this challenge.

We are indeed fortunate to have this panel with us this morning to approach this problem of how, with a greater understanding, we can help you at the local level.

Mr. Ford?

Mr. FORD. No comment at this time.

Mr. PUCINSKI. Mr. Hawkins?

Mr. HAWKINS. Not at this time.

Mr. PUCINSKI. Dr. Simpson, you may proceed.

I would recommend that the panel, because we are always confronted with a shortage of time, perhaps might keep your formal opening statements as brief as possible and develop your statements in the questions and answers that follow.

Mr. FORD. I ask unanimous consent that the prepared statements the witnesses have put before us be entered in the record in full and they be asked to summarize their statements.

Mr. PUCINSKI. That is so ordered.

STATEMENTS OF DR. ELIZABETH SIMPSON, PRESIDENT, AMERICAN VOCATIONAL ASSOCIATION, PROFESSOR OF HOME ECONOMICS, UNIVERSITY OF ILLINOIS, URBANA, ILL.; DR. BYRL SHOEMAKER, STATE DIRECTOR OF VOCATIONAL EDUCATION, STATE DEPARTMENT OF EDUCATION, COLUMBUS, OHIO, REPRESENTING THE NATIONAL ASSOCIATION OF STATE DIRECTORS; PHILIP W. SEAGREN, VICE PRESIDENT, NATIONAL COUNCIL OF LOCAL ADMINISTRATORS, DIRECTOR OF VOCATIONAL AND ADULT EDUCATION, LINDSEY HOPKINS EDUCATION CENTER, MIAMI, FLA.; EVERETT P. HILTON, STATE DIRECTOR, VOCATIONAL EDUCATION, FRANKFORT, KY.; DR. GEORGE BRANDON, HEAD, DEPARTMENT OF VOCATIONAL EDUCATION, PENNSYLVANIA STATE UNIVERSITY, UNIVERSITY PARK, PA.; DR. CATHERINE T. DENNIS, STATE SUPERVISOR OF HOME ECONOMICS EDUCATION, STATE DEPARTMENT OF PUBLIC INSTRUCTION, RALEIGH, N.C.; LOWELL A. BURKETT, EXECUTIVE DIRECTOR, AMERICAN VOCATIONAL ASSOCIATION, WASHINGTON, D.C.

(The prepared statements follow:)

STATEMENT OF LOWELL A. BURKETT, EXECUTIVE DIRECTOR, AMERICAN VOCATIONAL ASSOCIATION

Mr. Chairman, and members of the General Subcommittee on Education: We appreciate this opportunity to appear in support of legislation to expand and improve vocational education. We commend you, Mr. Chairman, for calling this series of hearings. We believe that you are dealing with one of the most important issues to come before this session of the 90th Congress.

Fifty years ago President Woodrow Wilson signed into law the Smith-Hughes Act to provide the first Federal aid for vocational education. As a result of this Act, there was created a federal-state-local partnership in vocational education. We are pleased that the bills now before this Subcommittee seek to strengthen and improve this cooperative endeavor among those agencies and levels of government that are concerned with providing education for employment through our school system.

As educators, and as concerned citizens, members of the American Vocational Association are encouraged with the increased attention and support given in recent years to education at all levels. While our primary concern is that of providing education for employment, we also recognize the need for all youngsters to become proficient in the basic skills of communication and to acquire the knowledge and insight that helps them to become mature and responsible citizens. At the same time, many youngsters should have access to vocational education programs designed to prepare them for employment at whatever level their aptitudes, abilities, and aspirations will permit. These two pursuits are not mutually exclusive but are complementary.

The American Vocational Association is a private, non-profit professional association of 40,000 members who are concerned with the promotion and development of vocational, technical, and practical arts education. AVA members are engaged in teaching, administrative, or supervisory positions in comprehensive high schools, vocational high schools, area vocational schools, junior and community colleges, technical institutes, colleges and universities, state departments of education, and in manpower development and training activities. Still others are engaged in research, curriculum development, guidance and counseling, or similar activities closely related to program of vocational training. AVA members also come from business, industry, and other fields outside professional education.

At an annual convention held each December, the AVA House of Delegates, representing the state associations, approves a program of work for the AVA and adopts resolutions designed to implement the program of work. State associations, with leadership from the AVA staff and with other professionals in the field, help to carry out the program of work.

Included in our 1967 program of work are several resolutions on Federal legislation. At this point, Mr. Chairman, I ask permission to include the resolutions adopted by the AVA House of Delegates at our most recent annual convention in Denver, Colorado, December 9, 1966: These resolutions reflect the official position of our Association as it relates to the legislation now before the Subcommittee.

AMENDMENTS TO P.L. 88-210

Whereas the maximum amount ($225 million) authorized by the Vocational Education Act of 1963 is far from adequate for grants to states to develop and implement occupational training programs to meet manpower needs in the years ahead, and

Whereas additional funds for the further development and expansion of vocational education programs and area-vocational-technical schools are needed by the states for (1) the construction of classrooms, laboratories, shops and dormitories, (2) instructional equipment and supplies, and (3) necessary personnel for administration, supervision, and instruction in such programs and schools, and

Whereas the provisions of the Act that require matching by purpose restrict the ability of the States to use the funds effectively for the basic purpose of the Act in accordance with needs evident in the state, and

Whereas the funds provided by the Act for minimum allotment to the less populous states are inadequate to construct even one area-vocational-technical center, and

Whereas there is a great need for expanding and strengthening the total home economics education program to prepare individuals for useful and gainful employment involving home economics knowledge and skills, and

Whereas funds to support Industrial Arts Education were not provided for in the Act, and

Whereas a representative committee of the AVA was formed in 1966 to work with the AVA Board of Directors in processing needed amendments to the Act, and

Whereas Congressional hearings were held during the Second Session of the 89th Congress in relation to amending the Vocational Education Act of 1963: Therefore, be it

Resolved That the AVA Board of Directors assemble a representative group of vocational educators at an early date to study legislative needs in vocational education; and be it further

Resolved, That the AVA Board of Directors continue to work toward the introduction and enactment of legislation in the 90th Congress that will effect needed amendments to the Vocational Education Act of 1963.

EXPANSION OF VOCATIONAL EDUCATION

Whereas occupational destinies are shaped over a long period, beginning at birth and continuing until retirement, and

Whereas appropriate education for occupational choice, orientation for the world of work, occupational competence and advancement should be a part of the total school education of all, and

Whereas vocational and technical education for older youths and adults is often ineffective or impossible when early schooling has been inadequate or unrelated to work, and

Whereas it is no longer possible to rely wholly upon families and out-of-school agencies to provide work experience, acquaintance with the wide range of occupational opportunities, and knowledge of the requirements of occupational entry and advancement, and

Whereas transition from school to work has become increasingly difficult: Therefore, be it

Resolved, That the AVA join with those responsible for the elementary, secondary, and post secondary schools in developing programs of occupational education appropriate for all students and participated in by all students in elementary schools, junior and senior high schools, and post-high school institutions; be it further

Resolved, That the AVA subscribe to the following criteria for these programs:

1. Programs in the practical arts, adapted to all students, should be expanded and extended downward into the early grades.
2. All students should receive this realistic occupational information and guidance, adapted to individual needs, and provided at appropriate times in their school careers. Parents should be aided in guiding their school-age sons and daughters in making realistic occupational choices and in selecting educational programs related to their choices.
3. All professional personnel in a school system who have a relationship to occupational choice, competence and advancement should be involved in planning programs of occupational education.
4. Schools should provide supervised work experience.
5. Schools should provide placement services when the students are ready to enter the labor market.

Be it further resolved that additional funds to implement this expanded and improved occupational development program be sought from local, state and national sources; that personnel be prepared to conduct the expanded programs; and that administrative arrangement, curriculum plans and teaching aids be developed which reflect the needs and interests of young and adult students.

RESIDENTIAL SCHOOLS FOR DISADVANTAGED YOUTH

Whereas many youths in our society lack the stabilizing influence and guidance derived from a well-adjusted home, and

Whereas these youths often find it difficult to adjust to the regular or traditional public schools program, and

Whereas these same inadequacies exist when the youths enter the world of work, and

Whereas these inadequacies are responsible for many of the socio-economic problems of our society, and

Whereas there exists strong evidence that adequately financed, professionally staffed, and properly oriented residential centers have resulted in alleviating these problems: Therefore, be it

Resolved, That the AVA urge the 90th Congress to give strong support to amendments to P.L. 88-210 that will provide for the expansion of vocational residential schools on a state and/or regional basis.

PREPARATION OF VE PERSONNEL

Whereas there is a critical shortage of vocational, technical, and practical arts teachers, and

Whereas there is an urgent need for vocational teacher aides, technicians, researchers, coordinators, supervisors, teacher educators, administrators, and other specialists, and

Whereas a major portion of the current and future labor force will require training and retraining in occupations served through vocational education, and

Whereas the national security and economy are vitally related to the trained manpower made available by these teaching, supervisory, administrative, and specialized personnel throughout the public schools, and other agencies: Therefore, be it

Resolved, That the AVA urge the 90th Congress to enact amendments to the Vocational Education Act of 1963 (P.L. 88-210) and to support other legislation which would authorize funds for a program of scholarships, fellowships and educational stipends, to programs of internship and inservice training of vocational education personnel; and that such scholarships, fellowships, stipends and internships be made available at graduate and undergraduate levels and to preservice and inservice teachers, teacher aides and assistants; coordinators, supervisors, and administrators; consultants and specialists in research, curriculum, evaluation, facilities and equipment, and personnel engaged in other aspects of vocational, technical and practical arts education.

LEGISLATION FOR HOME ECONOMICS EDUCATION

Whereas women are entering the labor market in increasing numbers and are thus assuming the roles of wage earners as well as homemakers, and

Whereas the family is the largest consuming unit of goods and services in our society and the buying practices of the family unit influence the national economy, and

Whereas home economics instruction promotes the improvement of homes and the strengthening of family life, and

Whereas youth and adults including those who are economically, socially and culturally deprived, can profit by participation in both home economics instruction and wage earning courses, and

Whereas the curriculum offerings in home economics which prepare for the vocation of homemaking include the development of competencies in the following subject areas: foods and nutrition, housing and home furnishings, child development and family relationship, family economics, and home management, clothing and textiles, and

Whereas these competencies are basic for success and gainful occupational training which involves home economics knowledge and skills, and

Whereas interest in preparing for entry into gainful occupations involving home economics knowledge and skills is motivated through courses in home economics, and

Whereas persons already employed need upgrading through home economics education in both homemaking and wage earning: Therefore, be it

Resolved, That the AVA urge Congress to liberalize the use of funds for home economics education to expand and strengthen programs for both useful and gainful employment in occupations involving home economics knowledge and skills for both youth and adults.

These five policy resolutions express our concern for a total program of vocational education. While high school programs should be greatly expanded, vocational education must also serve the training and retraining needs of post-high school and adult students.

Early this year the American Vocational Association, with the support and cooperation of the State Directors of Vocational Education, conducted a survey to assess the extent of which additional support is needed in order for the states to move toward the goal of meeting vocational education needs of all persons of all ages in all communities.

These figures are based on the assumption that federal-state-local matching will remain at the ratios now provided for in the Federal Acts and in the bills now before this Subcommittee.

The following is a summary of the information provided to us by the states:

SUMMARY OF A.V.A. STUDY NO. I—1967 [1], FEBRUARY 6, 1967

Estimated federal funds necessary to adequately meet the needs of vocational-technical education:

Fiscal year 1967	$414, 988,890
Fiscal year 1968	560, 835,000
Fiscal year 1969	656, 316, 499
Fiscal year 1970	1, 213, 616, 689

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[1] The figures reflected in this study include estimates received from all states and territories except Montana, North Dakota, Wyoming, District of Columbia, and Virgin Islands.

Estimated local and state support for vocational-technical education:

Fiscal year 1967	$726, 718, 895
Fiscal year 1968	875, 188, 871
Fiscal year 1969	955, 888, 961
Fiscal year 1970	1, 045, 666, 676

Total financial estimates (federal, state, and local) to adequately meet the needs for vocational-technical education:

Fiscal year 1967	$1, 141, 707, 785
Fiscal year 1968	1, 436, 023, 871
Fiscal year 1969	1, 612, 205, 460
Fiscal year 1970	2, 259, 283, 365

Estimated enrollments in vocational-technical education programs:

Fiscal year 1967	7, 097, 600
Fiscal year 1968	7, 781, 205
Fiscal year 1969	8, 829, 562
Fiscal year 1970	9, 059, 695

Estimated federal support needed for constructing, equipping, and remodeling facilities to adequately meet the needs for vocational-technical education:

Fiscal year 1967	$236, 034, 979
Fiscal year 1968	323, 669, 883
Fiscal year 1969	353, 043, 809
Fiscal year 1970	354, 231, 724

Estimated average cost for constructing and equipping one residential school is $3,996,051.

Estimated federal support necessary to operate one residential school for a one-year period:

Educational cost per student	$925
Residential cost per student	1, 018

Estimate of the number of residential schools needed:[1]

Fiscal year 1967	57
Fiscal year 1968	68
Fiscal year 1969	84
Fiscal year 1970	96

Vocational-technical education teachers now employed in the states:

Full time	66, 719
Part time	57, 483

Total estimated teachers needed for vocational-technical education:

Fiscal year	Full time	Part time	Total
1967	69, 252	64, 968	134, 220
1968	81, 741	73, 730	155, 471
1969	86, 591	79, 116	165, 707
1970	93, 954	85, 934	179, 888

Investment in vocational teacher training in F.Y. 1966:

Local	$2, 761, 176
State	7, 181, 290
Federal	5, 617, 396
Total	15, 559, 862

Total number of teacher trainers—1,956 of which 1,018 are full time and 938 are part time.

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[1] Seven states did not identify the number of residential schools needed.

Estimated federal support needed for pre-service, in-service, internships, and fellowships for vocational teachers:

Fiscal year 1967	$20,191,991
Fiscal year 1968	24,090,195
Fiscal year 1969	27,280,495
Fiscal year 1970	29,442,010

Estimated federal support necessary to provide work-study programs for students who need assistance in F.Y. 1967—$25,828,314.

Estimated number of students who should be served by work-study program:

Fiscal year 1967	323,403
Fiscal year 1968	353,858
Fiscal year 1969	379,307
Fiscal year 1970	396,599

41 states reported that the differential in matching among various work-study programs has created problems.

Estimated federal support states need for vocational technical education research:

Fiscal year 1967	$15,029,328
Fiscal year 1968	19,549,370
Fiscal year 1969	22,429,534
Fiscal year 1970	25,764,629

We hope that the resolutions adopted by our Association and the study conducted by our staff will give evidence to this Subcommittee of the deep commitment of vocational educators to expand and improve vocational programs so that we may serve people of all ages at all levels. We know you will give careful consideration to the ideas and facts we have presented.

Thank you very much.

STATEMENT BY DR. BYRL R. SHOEMAKER, DIRECTOR, VOCATIONAL EDUCATION, OHIO, REPRESENTING THE NATIONAL ASSOCIATION OF STATE DIRECTORS OF VOCATIONAL EDUCATION

Chairman Pucinski, and members of the General Subcommittee on Education, my name is Byrl R. Shoemaker. I am Director of Vocational Education in Ohio, and today I am representing the National Association of State Directors of Vocational Education. I am pleased to appear today on behalf of that association in strong support of House Resolution 7380.

Youth and adults throughout the Nation have benefited greatly by the Vocational Education Act of 1963, and it is the judgment of the State Directors of Vocational Education that the amendments contained in H.R. 7380 will make another significant contribution to the further development of vocational education programs under public education. Such programs are dedicated to preparing youth and adults for employment, to the retraining of the unemployed, and to the upgrading of those workers employed in industry, business, and agriculture.

My statement that the Vocational Education Act of 1963 made a great contribution to the growth and expansion of vocational education can be supported with facts and figures with regard to the growth of vocational education since 1963. In support of this statement, I would like to identify some of the contributions that have been made to the youth and adults in Ohio through the provisions of that Act.

From 1917 to 1963, a period of 46 years, enrollment of high school students in vocational education programs grew to a total of 47,240. In three years since the passage of the Vocational Education Act of 1963, the enrollment grew from 47,240 to 71,500 for Fiscal Year 1966 and will reach 87,000 during this fiscal year.

Vocational education programs to serve youth and adults had achieved an enrollment of 92,582 by 1963. Enrollments grew to a total of 144,496 by 1966, and will reach 155,000 by 1967.

Prior to 1963, there were a total of 383 full-time technical education students enrolled in six technical education centers. In 1966, there were 1,812 full-time students enrolled in thirteen technical education centers, and during this current fiscal year, there are over 2,500 full-time students enrolled.

In 1963, there were no area vocational school districts organized in the State of Ohio. As of this date, a total of 28 area vocational school districts have been organized. Three of these are in operation, three are under construction, and five more have been allotted funds for construction and are in the process of building or planning.

In 1963, there were seven vocational high schools in the large cities of our State. In addition to the area vocational education centers mentioned above that are developing outside of our large cities, we have added three new city vocational high schools, one major addition to an existing high school for vocational education, and have remodeled additional facilities in three of the cities for additional expansion of vocational education.

The State of Ohio has put approximately 80% of the funds made available under the Vocational Education Act of 1963 into the construction and equipment of new facilities for vocational education. The impact of the funding for construction and equipment on enrollments will not be felt until the 1968–69 school year. A summary of the expenditure of funds from the Vocational Education Act of 1963, which funds were matched by State or local funds, and the additional pupil population capacity and adult enrollment ability are indicated in the chart below.

CONSTRUCTION AND EQUIPPING OF FACILITIES

Year	State and Federal expenditures	Additional pupil population capacity	Probable adult enrollment
1964-65	$4,530,389.34	7,506	12,000
1965-66	6,123,841.04	5,058	10,000
1966-67	7,700,000.00	5,800	11,500

It should be noted from the chart above that the figures given on enrollment are annual figures, thus the facilities made available through construction will serve this number each year, for a life expectancy of 20 to 30 years.

One of the most significant developments in Ohio since the advent of the '63 Act has been in the area of programs for disadvantaged youth. This program soon will be making a significant quantitative as well as qualitative effort. Growth of programs in gainful occupations to serve disadvantaged youth are as follows:

PROGRAMS FOR DISADVANTAGED YOUTH

Year	Number of school districts	Number of pupils served
1962-63	1	30
1966-67	73	3,229

The funds provided for vocational education by the '63 Act have, as in past vocational education acts, stimulated the expenditure of additional State and local funds. The growth in the expenditure of State funds for vocational education is illustrated by the increase in the number of units paid under the State Foundation Program for vocational education from State funds.

ADDITIONAL STATE FUNDS FOR VOCATIONAL EDUCATION

Year	Number of units	Approximate State foundation expenditure
1963	1,134	$6,123,600
1967	2,296	12,398,400

There has been a corresponding increase in local funds for the operation of vocational education, since the total cost for the operation of a vocational education program would be more than twice the average value of the unit paid from State Foundation funds.

Further growth and expansion of vocational and technical education is needed to serve the needs of people and the needs of the expanding industries and businesses in Ohio. Additional Federal funds are needed to expand vocational education on the State and local basis to serve high school youth, unemployed out-of-school youth and adults, and employed workers needing upgrading instruction.

Adequate investment of Federal funds in vocational education is an economical way of serving the needs of youth and adults for vocational education, since the money provided to vocational education stimulates State and local funds. In addition, the monies expended through vocational education programs through the public schools are utilized basically as a preventative measure to the unloading of unskilled people on the labor market, thus creating broad unemployment. Vocational education eliminates the need for costly remedial programs by providing a solution rather than just treating the problem.

As I look at the need for vocational education in Ohio, I am convinced that additional Federal funds are needed for the operation of an expanded vocational education program, the construction of area vocational education centers, the construction and operation of residential centers, with particular emphasis upon school disoriented youth and out-of-school youth, programs for disadvantaged youth in high school, work-study programs, and teacher education. Under the present vocational education acts, Ohio will receive approximately $12,387,000 per year. Our studies in Ohio indicate that the following amounts of Federal funds could be used effectively for vocational education in Ohio during the next three years:

Year:	*Amount*
1968	$56,100,000
1969	64,200,000
1970	69,400,000

I have attempted in the testimony to this point to indicate the contribution that the Vocational Education Act of 1963 has made to the vocational education program in the State of Ohio and the additional funds needed in one State for the expansion of vocational education to serve more youth and adults. Vocational education is an integral part of a massive effort that we are making today to eradicate poverty, to solve other social problems that we face in an advanced Nation, and to strengthen our businesses and industries.

The State Directors of Vocational Education met on January 22 and 23 to consider matters pertaining to legislation for vocational education. As indicated previously, the Directors of Vocational Education are in strong support of the concepts identified in H.R. 7380. They did, however, suggest some amendments to certain features of the Act.

On the basis of a nation-wide study to project the needs for Federal assistance under Section 2 of H.R. 7380, State Directors recommend to the Committee of the House an increase in the authorization of Federal funds to support the purposes set forth in Sections 4(a) and 4(b) of P.L. 88–210 as follows:

Fiscal year:	*Amount*
1968	$400,000,000
1969	600,000,000
1970	1,000,000,000

In relationship to research funds under Section 4(c) of P.L. 88–210, the State Directors suggest that the language in the Act should permit up to 10% of the amounts authorized under Section 4 to be authorized for research, and further suggest that these funds be allocated as follows:

(a) 50% of such funds allotted for research should be allocated to the States in accordance with the already established formula for allocating other funds, except that research funds should be on a non-matching basis.

(b) All elements of Section 4(c) should be studied to determine the agency most appropriate for carrying out the following functions:

(1) Leadership Development, such as, institutes, conferences, and workshops

(2) Applied Research—Basic Research

(3) Experimental and Demonstration Projects

It was the consensus of opinion among the State Directors that the leadership development programs and the experimental and demonstration projects might best be authorized, funded, and supervised by the Division of Vocational Education in the Bureau of Adult and Vocational Education, which has a closer relationship to the operation of vocational programs than does the research unit in the Bureau of Research.

The State Directors believe that the work-study program has been a great contribution in the area of vocational education, particularly in relationship to programs established for disadvantaged youth. They believe that this program should be continued and expanded in amendments to the Vocational Education Act of 1963.

The Directors are strongly in agreement with the provision in H.R. 7380 which provides for a 90%–10% ratio between Federal and State funds expended for compensation of students, since this factor is in agreement with similar programs in other agencies.

The Directors, however, did suggest increasing the amount allotted for the development of the States' supplementary plan and for the administration of the plan from one percent of such allotment or 10,000 whichever is greater, to two percent of such allotment or 20,000, whichever is greater, in order to provide for the administrative services at the State level necessary to make effective use of such funds on an educational basis.

It was generally agreed that Federal funds under the work-study program should not be used for local supervision of work-study programs. Some of our States with large cities, however, believe that funds could be used effectively under this work-study area to provide for leadership in those large cities which have extensive programs involving large numbers of disadvantaged youth.

The State Directors expressed support for Federal funds for the construction and operation of residential schools. It is the belief of these Directors that such centers can be operated effectively and efficiently under State and local control. The Directors, however, question the wisdom of reducing the Federal matching provision from 90% Federal assistance for the construction and equipping of residential school facilities in the fiscal year ending June 30, 1969 to 75% for the following three years. This provision would give a premium to those States which organize their residential facilities in 1969 and would penalize those States which might not be initiating facilities until the years following 1969.

While the Directors suggested that assistance on construction and equipping of residential facilities be retained at 90%, they agreed that operational costs should be reimbursed from Federal funds on a 75% basis without restriction to a four-year limitation. It was further suggested that the approval for construction and operation of residential schools be allocated to State Boards for Vocational Education, rather than to assign the decisions to the U.S. Commissioner of Education.

The State Directors certainly are in support of the teacher education provisions of H.R. 7380, Section 5. Our projections for program growth indicate needs for increasing teaching staff which can be met only by a multitude of efforts involving pre-service and in-service educational programs, workshops, institutes, teacher exchange with business and industry, and fellowships for graduate study. The Directors suggest, however, that the approval of teacher training institutes to grant fellowships should be assigned to the State Board for Vocational Education rather than to the U.S. Commissioner of Education.

The Directors indicated their continuing support for the concept of work experience or cooperative programs as a part of the total program of vocational education. They also indicated support for a program of work orientation at the junior high school level is proposed in Title II of H.R. 6230.

Those of us working in the field of vocational education believe that we can prove that the funds expended for vocational education by the Federal Government have been spent wisely to provide effective programs to broad numbers of youth and adults throughout this Nation. The strong support given vocational education by business, industry, agriculture, and government at the State and local levels indicates that vocational education has produced results when given the opportunity and the funds to produce. The success of vocational education in responding to every challenge given it by the National Congress indicates that the State-Federal-local relationship in vocational education has stood the test of time and the test of a number of national emergencies.

Those of us assigned the responsibilities for leadership in the area of vocational and technical education in the States urge your consideration of the suggested changes to H.R. 7380 as identified previously in this report, and strongly urge favorable consideration of this bill by your Committee and by the Congress.

STATEMENT BY PHILIP W. SEAGREN, DIRECTOR, ADULT VOCATIONAL EDUCATION, DADE COUNTY PUBLIC SCHOOLS, MIAMI, FLA.

My name is Philip W. Seagren. I am the Director of Adult Vocational Education for the Dade County Public School System which includes the Greater Miami area. It has been my privilege to serve this school system for the past 38 years.

As Vice President of the National Council of Local Administrators of Vocational Education, I am speaking in behalf of the local directors of the entire nation.

Much has been said and much has been done in the past several years to establish emergency training programs. The Manpower Development Training Act has done much to reduce the unemployment rolls throughout the nation. Concurrently other agencies have been established which are also involved in training. We at the local level are concerned about the overlapping and duplication of effort. In Miami and Dade County, for example, we had an emergency that occurred involving Cuban refugees. With adequate federal funds and a simplified system of funding, our vocational program absorbed tens of thousands of Cuban refugees in a retraining program. This was done at the same time that local adults were attending regular vocational courses with an enrollment exceeding 20,000, with a total number of adults attending for the fiscal year exceeding 65,000.

It is obvious to all of us that manpower training needs to be expanded. The building in our area housing manpower training could be doubled in capacity if funds were available.

In working with the local employment service, we naturally have been concerned about the hard core area and because of limited funds in manpower training, we now have on the drawing boards plans for a seven-story building adjoining Lindsey Hopkins which will house a large number of new programs in the health occupations. This building will cost $1,000,000 and presently only 14 per cent of federal funds has been made available to assist us in this project. The balance will be from the State, with a small portion of local effort.

I realise that this committee is perhaps not directly concerned with manpower training but it is rather difficult to talk about the entire educational picture as it involves occupational training without bringing it in for some consideration.

Up to now I have been talking about the immediate needs that concern us in the hard core employment area. There is another area that gives me greater concern. With the population explosion reaching its peak, our educational facilities for the youth of this nation are far from adequate. As local administrators are attempting to cope with this surge in enrollment at secondary and postsecondary schools today, we realise more than ever that a large percentage of these youth need occupational training. At the same time we must give careful consideration to another group that perhaps have been overlooked. We call them the disadvantaged youth. Yes, we need to have adequate facilities *now* to provide training in our secondary and postsecondary schools in occupations and continuing education programs which are aimed at the youth that are needed in the ever-expanding labor market in the field of technical and skilled occupations.

As mentioned previously, stopgap programs such as manpower training are needed to meet employment demands confronting us *today*. It is, however, imperative that we take a realistic look at the secondary school curriculum to keep abreast of the times in this changing world of work. The secondary school curriculum needs to be revamped, thus providing occupational and continuing educational programs aimed at prevention rather than remediation which will provide for the greatest return in human resources and for the maintenance of a stable and adaptable work force.

Failure to meet this challenge will mean that the dropouts and the high school graduates that do not go to college will continue to flood the labor market in ever-increasing numbers as unemployables. May I state further, if the secondary school curriculum is not changed to meet the needs that I referred to, the federal government will have to continue, and perhaps increase federal appropriations for stopgap training such as MDTA.

It was my privilege to attend a conference at Atlanta, Georgia last week, called by the Southern Association of Colleges and Schools. This was by invitation. One hundred persons were in attendance, representing business, industry, university officials, and state and local vocational administrators.

I believe it can be said that this is the first time that general educators at both secondary and college level expressed concern about the inadequacies of our secondary school systems. College presidents admitted that the high school curriculum needed to be overhauled so as to provide training for the large percentage of youth that were not going to college and had to face the world of work. A copy of my report on this conference is attached.

To increase the occupational training facilities in high schools, the need of which has finally been acknowledged by general educators, is going to overtax state and local budgets. It is therefore imperative that federal funds be increased at a rapid rate each year for the next several years.

In addition, it was also acknowledge at this conference that another area in secondary education would have to become more realistic, namely, the guidance departments. Immediate review is necessary as it pertains to certification requirements for counselors. It was the opinion of many at this conference that if counselors were to look up to rather than look down on skilled occupations, that they should be required as our vocational instructors, to have occupational experience, either in business or industry, in addition to their regular professional training at the baccalaureate and graduate level.

The Work Study Program made possible under the Vocationa Education Act of 1963 was very helpful to high school youth enrolled in vocational and technical programs. This program was dropped in August, 1966, when the local committees were required to meet 10 per cent of the amount of money paid to the students. I am sure that this worked a hardship on youth throughout the nation who were enrolled in vocational programs and had to cope with having the Work Study Program discontinued.

It is true that we have a work training program offered under the Economic Opportunity Act, but this does not accomplish the same goals as was possible under the Work Study Program of the Vocational Act.

Under the Work Study Program, we were able to follow the intent of the law by placing students in their chosen vocational field or in a related area. It was also possible for us to secure jobs outside of the school system for these students. In addition to earning money under the Work Study Program which enabled them to stay in a vocational program, they also received additional training in their chosen field. Employers were appreciative of the fact that these students were sincere in choosing an occupation which followed through with the training that they were receiving at the vocational school. In the opinion of employers our graduates were that much more valuable as employees.

As vocational and technical programs continue to expand in the secondary school system, as well as in the postsecondary, there will be an increased need to upgrade all administrators, supervisors, and instructors. It will enable us to raise our standards of training in our vocational program and be in keeping with the needs of business and industry; and as we become involved in this rapid expansion, it will require additional facilities, additional staff, and a far greater number of qualified vocational and technical instructors. In order to meet such a change, we will need federal assistance to provide workshops and inservice training for our existing personnel, as well as to have funds to recruit qualified personnel from industry and meet their wage demands.

In conclusion, I would like to state, as a local director, that we are experiencing difficulty meeting our obligations in this ever-expanding program by the use of state and local funds. If this is true in a large metropolitan area such as Greater Miami, it is definitely far more critical in the smaller counties where the tax base is very inadequate and therefore can provide little or no vocational and technical education.

While it is true that I have cited a number of examples pertaining to local problems, it is only natural that I do so since I am more familiar with the problems of my state and community. Nevertheless, I am aware that this is a universal problem. Our state for the fiscal year 1966 had a total expenditure for vocational and technical education, exclusive of Manpower Training, which at local level was $8.4 million, state level $15.6 million, and federal level $6.8 million. It is estimated that for the fiscal year 1967 the local effort will have to be increased to $13.6 million, state level to $43.0 million, with the federal effort estimated at $7.6 million. I am sure it is not possible for us to meet the goals estimated for 1967 but it does indicate that we are trying to do all we can to expand the vocational and technical education programs at both the state and local level.

APRIL 10, 1967.

MEMORANDUM

To: Mr. Selby.
From: P. W. Seagren.
Subject: My reaction to the Special Conference of the Southern Association of Colleges and Schools.

I was pleased to receive an invitation from Dr. Felix Robb, Director of the association, to attend this conference along with 100 persons from business, industry, and education in the southern states. In looking through the list of participants, it was interesting to note that we had one person from the Research Development Division in Tallahassee, two presidents of junior colleges in Florida, the Dean of the Health Division, University of Florida, and one person from vocational education, which happened to be me.

The fact that Dr. Robb was in Miami in November as Chairman of the Manpower Advisory Committee for the Southeastern Division had much to do, in my opinion, in the planning of this conference. When Dr. Robb and members of the committee visited Lindsey Hopkins Education Center we spent considerable time informing them of the functions of our guidance department for adults. We put particular stress on quality of training in the business and occupational areas through the establishment of prerequisites. This was discussed at some length in the conference.

I think that this is the first real breakthrough which will give vocational and technical education proper recognition in the field of secondary as well as post-secondary schools. It was encouraging to hear presidents of colleges and universities, as well as county superintendents of large communities, who are members of the Southern Association stress the urgency for the change in accreditation and to see them taking a more realistic approach in evaluating certification for shop instructors. Many of them are aware for the first time that experience is No. 1 in the occupational field and a degree is secondary.

The Board of Directors for the Southern Association as well as the trustees indicated very clearly that while it was necessary to change accreditation to encourage more programs in high schools, it also was necessary for the Southern Association to do all it could to create a better image as it pertained to occupational training. Also, they indicated that it was their responsibility to set up what might be called a campaign to inform principals, guidance counselors, and most important, the parents that it is just as important to enroll in an occupational training program in a high school as it is to seek a college preparatory course. Again, these were college presidents and county and city superintendents who were talking.

It was indicated that the Board of the Southern Association moves slowly and that this was one time they needed to act immediately, not only in the adjustment of accreditation, but to build a new image for vocational and technical education which would draw more high school youth into these occupational areas so as to reduce dropouts, and also to make it possible for high school graduates that are not going on to college to become employable.

At the conclusion of the conference a motion was passed unanimously that the Board of Directors for the Southern Association of Schools and colleges would appoint a committee, the majority of which shall be local directors and state directors for vocational education.

Listed below is information that was released at the conference. I thought it might be of interest to you.

1. The national per capita income is $2724.00 and the per capita income of the south is $2070.00. The per capita income for some of the southern states is: (1) Georgia $2420, (2) Virginia $2392, (3) Texas $2346, (4) Florida $2156, (5) North Carolina $2028, (6) South Carolina $1838, and (7) Mississippi $1566.

2. They had a graph that showed the total enrollment in secondary schools in the southern states. Texas, of course, was first. Florida followed with a close second. In checking another chart depicting the number of students in vocational programs in secondary schools, Texas was first, followed by Virginia, Georgia, North Carolina, Louisiana, Tennessee, and Florida.

STATEMENT OF DR. GEORGE BRANDON, HEAD, DEPARTMENT OF VOCATIONAL EDUCATION, PENNSYLVANIA STATE UNIVERSITY, UNIVERSITY PARK, PA.

THE CRITICAL IMPORTANCE OF TEACHING AND LEADERSHIP

Any and all instruction is as good as its teaching. This fact is to say that regardless of generous provisions which are made to enhance the attractiveness of the learning process, the teacher remains as the center of the total effort. This fact is also true at all levels of education, from pre-school to post-doctorate. Finally, the fact is acceptable to all philosophies regardless of their beliefs that education occurs best from direct experiences, or in the exchange of abstract ideas, or in combinations of the two. The fact does not say that teaching cannot be improved, impaired, made more efficient, or influenced by a multitude of critical factors. Father Koob, an ex-principal and present Acting Director of the National Catholic Educational Association, states the issue eloquently in an article for *Education Age*, "It's the Teacher that Matters." "The last person to be singled out for recognition is that faithful teacher who is doing the ordinary job of teaching well—in fact in what we might call an *unordinary* manner. The last deserving ability to receive public acclaim, either within the school or anywhere else, is a well-executed bit of classroom instruction. This is regrettable."[1]

As democratic citizens in our Nation, we have never been able to agree upon a definition of teaching (and learning) which is acceptable to each of us and to the purposes of our society. As citizens we can be eternally thankful that our national Constitution and the supportive efforts of our Congress guarantee this freedom of ideas and expression in the broad field of education. In sharp contrast to our disagreement on definition, we universally accept the place and value of the teacher as the key to learning. Possibly this acceptance has been a pitfall and a limiting factor in that we cannot perceive of new approaches to the teaching process in vocational and technical education. The dramatic adjustment which seems to be necessary, if the organization of teaching is to match up to Federal and State provisions in the complex of legislation, suggests that we design new and creative patterns for the utilization of a teacher corps which go far beyond our notion of "one group, one teacher" type of instructional organization. Obviously, the preparation and utilization of supervisory and administrative personnel should be examined in a similar context.

The Vocational Education Act of 1963 and subsequent legislation which supports occupational education of many forms re-emphasizes several strong outcomes of the President's Panel of Consultants on Vocational Education in its report, namely that (1) *people*, their welfare and contribution to the Nation's security and defense are at the heart of our educational efforts, (2) vocational and technical education must be made available to *all* of our youth and adults on many levels of instruction, and (3) the curriculum and program should be enriched many fold and buttressed by strong supportive services to prepare teaching and administrative personnel to achieve realistic, desirable purposes of vocational education in a democracy. It is the specific thesis of this position statement that the desirable outcomes of the President's Panel and subsequent legislation will only be attained through the combined efforts of the teaching and administrative personnel leadership who are and who will be affiliated with the program.

DEMAND AND SUPPLY OF VOCATIONAL AND TECHNICAL EDUCATION PERSONNEL

The total demand for personnel to implement the provisions of Public Law 88-210 and other Federal and State legislation related to many forms of occupational education, if the figure could be ascertained, is probably staggering. To a very small degree, the current staffing problem in the Commonwealth of Pennsylvania area vocational technical development might be indicative and revealing particularly as this development is related only to Public Law 88-210. Current planning in the Commonwealth indicates that thirty-one (31) area vocational technical school buildings will demand a minimum of 606 teachers and 75 administrators. Sixteen (16) area vocational technical schools in operation at the present time will require replacements of teachers and administrators of the current operating staff of 350 instructors and 65 supervisors and administrators. These approximate demand figures do not include the number of needed personnel in colleges and universities in teaching and administrative positions at the graduate and undergraduate levels of instruction, in vocational and technical research, and in the many specialized aspects of curriculum development, facilities and equipment, instructional materials production, and occupational guidance. Also not included are positions in the state educational agency and its field staff, the emerging junior-community college development, the technical institute, and the branch campus expansion of Pennsylvania colleges and universities. Generally while we can be enthusiastic over the development of many new institutions to offer vocational and technical education, we should not be surprised in the near future to be confronted with exciting, new, well-equipped shops and laboratories which are woefully understaffed, quantitatively and qualitatively, with both teaching and administrative personnel.

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[1] C. Albert Koob, "It's the Teacher That Matters." *Education Age*. Volume 3, No. 2. November-December, 1966. P. 42.

Activities and achievements related to supply—recruitment, selection, and preparation—do not match up to the challenges of the demand. This fact is seemingly much more impressive in the recruitment of administrative and supervisory personnel, and to still a greater degree in staffing teacher education and research personnel on the college and university level. Obviously, some strong form of categorical aid and attention must be brought to bear upon increasing the supply and preparation of personnel which are needed.

THE NATURE AND IMPORTANCE OF NEEDED SUPPORT

Possibly the kind and amount of support which is needed to stimulate interest and participation on the parts of many individuals who can contribute a great deal to the development and meaning of vocational and technical education in the lives of our youths and adults is illustrated in the support which has been given to the science and mathematics programs under the leadership of the Federal government. Last year, the National Commission on Technology, Automation, and Economic Progress made a number of studies which have strong implications for vocational education. In its Appendix Volume IV, *Educational Implications of Technological Change*, the Commission in discussing the support of higher education by the Federal government makes an interesting observation which may be an analogy of considerable meaning and application to us and our interest in vocational and technical education:[3]

"Much research in higher education is dependent upon Federal financing: two-thirds of the total research expenditures of colleges and universities are funded from Federal sources; and over 25,000 graduate students in mathematics, physical sciences, life sciences, and engineering are supported primarily by employment under Federal research contracts and grants. The contribution to knowledge made possible by these grants has been a major factor in accelerating scientific advance and in educating and developing the talent of outstanding youth. The major problem is the imbalance created in the research effort. Resources for research in the social and the behavioral sciences, the humanities, and the arts are starkly limited with the result that young people with multiple talents are steered toward fields in which their graduate study may be subsidized."

Considerable stimulation of interest and participation in vocational education has occurred as a result of the ancillary and IVC provisions for research and training in Public Law 88–210. The point which is being emphasized here is to indicate that specific provisions must be aimed at the preparation and development of vocational personnel at all levels. It possibly goes without saying that the provisions will compete with resources which support other educational development; despite the laudable effort which is accompanying the development of many aspects of the vocational technical education program, the development and continued education of personnel who man the program at all levels, if left to chance, will neither be present in sufficient numbers nor in adequate competency.

Widespread support is urgently needed in colleges for teacher education for the pre-service and in-service education of personnel to support instruction, supervision, coordination, and administration of vocational and technical education programs in secondary schools, post high schools, and in the undergraduate and graduate programs on the college and university levels. This support is needed in all of the existing vocational and technical services or categories such as: agricultural education, business and office education, distributive education, home economics education, trade and industrial education, technical education, and in occupational guidance and counseling. Ideally, the support may take different forms but it should encourage full-time concentration upon preparation for vocational and technical education careers at the undergraduate and graduate levels. It is highly desirable that provisions should support programs which could include opportunities for students to gain first-hand and direct experience as practicing interns wherever arrangements may be made for this service. Accordingly, internships could be provided in direct teaching, supervision, coordination, and administration in local and area vocational and technical schools. Internships should also be provided in a similar manner in connection with college and university teaching, curriculum development and research.

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[3] National Commission on Technology, Automation, and Economic Progress, *Educational Implications of Technological Change*. Appendix Volume IV. *Technology and the American Economy*. Government Printing Office. February 1966. P. 145.

There seem to be desirable features to the traineeships currently sponsored by the National Science Foundation for its program. Apparently the features of this program include the granting of traineeships to various colleges and universities which are qualified to offer programs in connection with specialized, competent departments. Departments usually nominate qualified and interested students and the college or university receives a stipulated amount per trainee. The various vocational and technical education departments of colleges and universities should be encouraged to submit proposals for the preparation of vocational and technical education personnel with particular reference to the specialization of the student but also respecting the requirement of an understanding of the overall field of vocational and technical education and the special needs emphasis which is made in the Vocational Education Act of 1963. It is highly desirable that new and creative programs for the preparation of personnel be perceived and projected, and the granting of traineeships to institutions of higher education should seek out those programs of innovation. The length of traineeship should be appropriate to the various levels of higher education and provisions should be made to encourage continued study in programs which require greater periods of time or which may be interrupted for participation in an internship at appropriate stages of the preparation. It is important that traineeships include provisions for allowances for subsistence and other expenses for the trainee and his dependents. Most desirably, grants for traineeships, fellowship and other stipends should be allocated directly to institutions of higher education for ease and dispatch in administration of the preparation.

There is general feeling among professional vocational educators within the American Vocational Association that there is a great deal of interest and talent in vocational and technical education teaching and administrative careers on the parts of persons presently employed in many occupations in business, industry, and various commercial establishments. Many of these individuals have in the past found their ways to vocational teaching, particularly in the adult vocational aspects of the program. It is felt that planning and encouragement on the part of the Federal government might encourage many persons of this nature to pursue professional careers in vocational education. Ways should be found to stimulate and sustain interest of this nature and to implement professional programs, possibly of an exchange or cooperative education nature to tap this valuable human resource. Obviously, if this interest is tapped and encouraged, considerable recognition should be made for the advanced age and maturity of such persons in comparison with the entrance age of relative young persons embarking upon collegiate careers. As in the case of traineeships to higher education, such cooperative arrangements and exchanges should be planned on a specific program and training basis, that is to say that experiences and learning should be planned in connection with the achievement of desirable competencies which are peculiar to success in the educational careers and positions for which individuals are being prepared.

Generally in keeping with concentrated interest and participation to achieve professional goals efficiently and in as short time as possible, the fellowships, traineeships, and exchange provisions should not be watered down by expected service or work as part of a load. On the other hand, trainees, fellows and exchange students should be expected to maintain high degrees of proficiency in academic work which is undertaken and the achievement of professional competencies which will ultimately be expected in the discharge of responsibilities in professional careers. Provisions are greatly needed on a short term basis to encourage in-service teachers to devote occasional periods of full time to their development and advancement in the profession. Grants of this nature might support a trainee for a period of an academic term or a summer directed toward his professional or technical improvement. A grant or stipend for this purpose should be adequate to encourage full-time participation for the term to achieve a successful advanced step in professional or technical growth. Resources of this nature could be provided for relative short periods of time. It is felt that considerable growth and advancement and accompanying improvement of teaching and administrative service could be gained by particularly those persons under full-time employment during the scholastic year. Working in conjunction with short term grants and stipends, resources should encourage the rapid and wide development of workshops, institutes, conferences, and seminars provided by academic institutions and business and industry in the short term program. Provisions should be appropriately flexible to encourage internships which might also be structured on a short term basis.

Current efforts and provisions to interest and encourage young people, particularly the graduates of secondary schools, to enter vocational and technical careers are woefully inadequate. Due to the traditional purposes of the vocational education program, there has been great weakness in encouraging young persons, themselves graduates of vocational and technical education programs, to continue study and preparation for professional careers in vocational education. This negligence, particularly in some aspects of vocational education, has led to the dependency upon recruiting individuals from business and industry on a second career basis. Obviously, with the number of dedicated professionals which will be needed this valuable resource in the young people of our nation cannot continue to be ignored. A program of scholarships should consequently support the dedication and interest of young people to pursue professional careers in this field. Colleges and universities should be greatly encouraged to frame proposals for the preparation of these youth who undoubtedly will follow programs up to the baccalaureate of preparation. Comprehensive secondary schools should be encouraged to work with colleges and universities in articulating programs for this purpose. Institutions of higher education should be stimulated to propose creative and innovative programs which use the widespread resources of business and industry of the wider community in connection with carefully planned work experiences of a cooperative nature which are integral with the professional career objective.

In summary, the critical points to be made in this statement of position are to emphasize that there is a critical shortage of vocational, technical and practical arts teachers and that this shortage is closely related to the security and economy of our nation and its trained manpower. Generally, current provisions to alleviate this critical shortage are inadequate and therefore the Federal government should strongly consider the support of an urgent program for the preparation of numerous professional positions in vocational and technical education. It is perceived that more than teachers are required in this needed corps of professionals; innovative patterns for the preparation and utilization of teacher aides, technicians, researchers, coordinators, supervisors, teacher educators, administrators and other specialists will be urgently needed to staff the program which is currently being planned and indicated as desirable by the Federal government and the various states of our nation. The preparation and utilization of these personnel, it is perceived, is a continuing job corresponding to the continuing education problem of our current and future labor force of our society. For the immediate future ahead numerous forms of provisions and grants in aid are necessary to support this effort. Without this effort on the part of the Federal government, it is felt that vocational and technical education as conceived in the Vocational Education Act of 1963 will have much less than the desirable effect and meaning in the lives and welfare of our citizens and the nation itself.

STATEMENT OF CATHERINE T. DENNIS, STATE SUPERVISOR OF HOME ECONOMICS EDUCATION, STATE DEPARTMENT OF PUBLIC INSTRUCTION, RALEIGH, N.C.

Mr. Chairman, I am Catherine T. Dennis, State Supervisor of Home Economics Education, Division of Vocational Education, State Department of Public Instruction, Raleigh, North Carolina. I speak for the home economics teachers, teacher educators and supervisors of home economics education programs who are members of this Association, as well as for a large number of local school administrators who are requesting additional positions to expand home economics programs for both useful (homemaking) and gainful (occupational) employment.

We have been concerned about the limitations in the Vocational Act of 1963 in relation to the vocational home economics program. Not only are we restricted ad infinitum to the set amount of funds under the Smith-Hughes and George-

Barden Acts minus 10% of these appropriations, but we cannot use any of the funds of the 1963 Act except for training for gainful employment. For several years we have earnestly besought reconsideration of this part of the Act. We are distressed that no attention is being given to our request in the proposed amendment to the Act in the Bill H.R. 7380.

We furthermore reiterated our position at the annual meeting of the American Vocational Association in Denver, Colorado, December 1966, when the following resolution was adopted by the House of Delegates:

6. LEGISLATION FOR HOME ECONOMICS EDUCATION

Whereas, women are entering the labor market in increasing numbers and are thus assuming the roles of wage earners as well as homemakers, and

Whereas, the family is the largest consuming unit of goods and services in our society and the buying practices of the family unit influence the national economy, and

Whereas, home economics instruction promotes the improvement of homes and the strengthening of family life, and

Whereas, youth and adults, including those who are economically, socially and culturally deprived, can profit by participation in both home economics instruction and wage earning courses, and

Whereas, the curriculum offerings in home economics which prepare for the vocation of homemaking including the development of competencies in the following subject areas: foods and nutrition, housing and home furnishings, child development and family relationships, family economics, and home management, clothing and textiles, and

Whereas, these competencies are basic for success in gainful occupational training which involves home economics knowledge and skills, and

Whereas, interest in preparing for entry into gainful occupations involving home economics knowledge and skills is motivated through courses in home economics, and

Whereas, persons already employed need upgrading through home economics education in both homemaking and wage earning, therefore,

Be It Resolved that the AVA urge Congress to liberalize the use of funds for home economics education to expand and strengthen programs for both useful and gainful employment in occupations involving home economics knowledge and skills for both youth and adults.

Professional leaders in the various States have accepted the challenge to broaden the home economics curriculum to include education for gainful employment proceeding as rapidly as professional personnel can be trained or retrained in the areas requiring home economics skills: foods, clothing, child care, and home or institutional management. These occupational areas include services to both families and individuals in both home and institution. There are no definite lines of demarcation in service occupations; therefore, training must be geared to clusters rather than single employment possibilities. Cooperation with Federal, State and local agencies has been consistently maintained for the purpose of meeting the demands of the labor market as well as the needs of the individual for placement according to personal interest and ability.

We share your feeling of urgency in regard to training to develop competency for employment, supporting the national economy: to overcome some of the educational deficiencies characteristic of many disadvantaged youth; to develop, on the part of youth, keener insights into the values of family living to keep the home front strong; and to inculcate in youth attitudes of personal integrity and citizenship responsibility.

When one analyzes the above statement it becomes apparent that competency in employment requires more than mere performance on the job. An individual's attitude, value system, ability to get along with others, and family situation affect his chances of getting and holding a job.

Even though the compilers of the publication describing recognized trades, technical and professional occupations for gainful employment do not include homemaking, "gainful employment" is defined in Webster's Dictionary of Synonyms as "one's occupation or the work in which one is regularly employed or engaged." Since the latter definition is popularly accepted, there would appear to be no question as to whether homemaking qualifies as a vocation and is so considered by the majority of American women, that is, as their primary occupation.

Do you know anyone who does not believe that the home and the welfare of the family is not the primary responsibility of the mother, regardless of whether or not she is employed outside the home?

If we accept the statistics on the need of the labor market for trained workers in both production and service fields; if we accept the statistics from the Labor Department in regard to the numbers of women now employed in the labor market; and, if we believe the predictions of leading economists that 90% of all women in this country will enter gainful employment and remain on the job twenty-five years or more, we know that education for a dual job is a must.

Since a woman's primary function will be homemaking, she will need knowledge and skill in the management of her time, energy and money. From gainful employment, outside the home, hopefully, she will be able to contribute to the economic welfare of the family—but only if she uses the money wisely through consumption of goods and services within the limits of the family income. When housekeeping skills and management of time, money and energy are unknown to or poorly practiced by the homemaker, gainful employment becomes a liability rather than an economic asset.

This is an age of early marriage and parenthood. Never in the history of the United States have so many women married and at so early an age. The findings of a research study recently completed in the State of Virginia on the status of tenth grade girls ten years later, indicate that skills in homemaking definitely were not "learned at mother's knee." The same findings indicated that the majority of these girls were now homemakers and had definite concerns about rearing children, feeding their family, wisely using their resources and the creation of a good family life wherever they lived.

Home Economics is the only subject in the high school centered around the daily aspects of family living. A well planned program is indispensable in today's educational program for all youth.

I can speak only from my experience in North Carolina, but similar examples can be found in many States. My first occurred in a small high school in an eastern county in my State. The class is composed of educable though retarded children from low socio-economic background. The letter from one student indicates not only the development of a simple skill learned in a homemaking class, but also an attempt to communicate, to express personal feelings and to gain in feelings of adequacy resulting from the interest and teaching skill of a dedicated home economics teacher.

"DEAR DOCTOR DENNIS: Just a few lines to let you hear from me. I am glad that you could bring the material. I am making a shift out of this material.

"Thank you very much. We wish that you could come and see us again. We enjoyed having you the last time.

"Your truly,

"(Signed) EFFA MAE MURRELL."

An unsolicited letter from the superintendent of this school district is herein quoted.

"MRS. GERALDINE BEVERIDGE,
Home Economics Department,
Queen Street School,
Beaufort, N.C.

"DEAR MRS. BEVERIDGE: As you are well aware many of your Home Economics students come from deplorable home surroundings. I appreciate your efforts aimed toward improvement in this area.

"Best wishes.

"Sincerely,

"(Signed) T. L. LEE, *Superintendent.*"

As a result of the work of the home economics teacher in this one school, 28 mothers enrolled in an adult class to learn how to improve their homes located in a depressed, slum area. Assistance from this teacher is being sought continuously by the mothers who desire some of the "good things" of life for their families.

As the several states engage in evaluating the vocational education programs seeking the strengths on which to build and weaknesses to be corrected, improvement in teaching methods, increased vocational offerings and the need for more funds will become apparent.

In North Carolina we are engaged in an indepth evaluation of a random sampling of vocational education programs in 186 public schools. The data has not yet been compiled, but a cursory glance at the responses from a few individual schools from which the evaluation forms have been secured indicate that the homemaking courses for useful employment rank high in the opinion of the students and local people. Although occupational training for gainful employment is a comparatively recent innovation in the home economics area, enrollments in such courses are gradually increasing and high school students are finding employment due to increased competency. Instruction in home economics courses enables the student to decide on the cluster of occupations in which he might hope to succeed based upon personal interest and skill development.

It is becoming increasingly difficulty to see home economics for useful employment as separate and apart from home economics for gainful employment. Courses emphasizing useful employment help the working woman and potential working woman to organize, to manage and to plan for home surroundings conducive to the growth and development of each family member. In the words of Ashley Montagu, "Being a good wife, a good mother, in short, a good homemaker, is the most important of all the occupations in the world. . . . the mother is best equipped to provide those firm foundations upon which he can subsequently build." [1]

At the same time, the areas of instruction included in the course often motivate a student's decision in choosing the occupational cluster or mix in which he wants additional training. Home economics for useful training thereby serves dual purposes—education for the occupation of homemaking and motivation for wage earning in occupations requiring certain skills and knowledge.

STATEMENT BY EVERETT P. HILTON, ASSISTANT SUPERINTENDENT, VOCATIONAL AND TECHNICAL EDUCATION, STATE DEPARTMENT OF EDUCATION, FRANKFORT, KY.

My name is Everett P. Hilton. I am Assistant Superintendent of Vocational and Technical Education in Kentucky. I appreciate the opportunity to appear before this important committee on education and discuss the merits of Section 4 of H.R. 7380 dealing with the proposed "Vocational Education Amendments of 1966." As you know Section 4 pertains to the "Residential Vocational Education School Program." This Section relates to Section 14 of the Vocational Education Act of 1963.

Section 14 of the Act focuses special attention on the one purpose of vocational education which has pulled at the "heart and conscience" of the Nation more than any other aspect of education.

"Vocational Education for persons who have academic, social, economic, or other handicaps that prevent them from succeeding in the regular vocational education program." [1a]

This is the neglected group in our society that needs help so they can become productive and useful citizens in the "main stream" of American life. There are a lot of things that we do not know about this group; things that we need to know if their special problems are to be handled effectively in the educational establishments of this country. We need to identify these people, accurately assess their handicaps, motivate their interests in seeking solutions to their problems, develop educational programs that will meet their needs, and then help them find their rightful place in society.

I am convinced that Section 14 of the 1963 Vocational Education Act is oriented to this basic problem and should be implemented. We in vocational education have a special interest in serving persons with special needs. We are concerned because we believe that vocational education for gainful occupations can be effectively combined with compensatory education to raise these people to a level of full participation in society. We further believe that such programs, operated through the regular vocational education system of public schools, can make these people employable without robbing them of their dignity and independence as human beings. It is our earnest desire to back up these beliefs with programs designed for this purpose.

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[1] Montagu, Ashley, *The Humanization of Man*, Grove Press, Inc., New York, 1962, p. 187.

[4a] Vocational Education Act of 1963, Part A, Section 4(a)(4), Public Law 88-210, 88th Congress, H.R. 4955, December 18, 1963.

Congress recognized the problem of persons with special needs under Sections 13, 14, and 15 of the 1963 Vocational Education Act. Provisions were made for Work-Study programs in Section 13. Work is being provided for economically handicapped youth in order that they might pursue full time programs of instruction in vocational schools. Through this program, many students who would otherwise not have been able to go to school have been able to avail themselves of vocational education. This part of the program needs to be expanded to provide opportunities for more students.

Section 14 of the 1963 Vocational Education Act provides for "Residential Vocational Education Schools" for the purpose of demonstrating the feasibility and desirability of such schools for certain youths of high-school age. Section 15 of the Act authorizes funds to be used to support the Work-Study program and Residential Vocational Education schools. Section 15 of the Act should be amended to separate the financial support now authorized in that section for work-study programs and residential schools provided in Sections 13 and 14. The functions authorized under these two sections of the Act are entirely different and should be funded separately. As I understand it, Section 4 of H.R. 7380 proposes to separate them.

RESIDENTIAL VOCATIONAL EDUCATION SCHOOLS

I have been asked to address my remarks specifically to Section 4 of H.R. 7380 "Vocational Education Amendments of 1967," pertaining to the *Residential Vocational Education School Program.*

I am convinced that the need for and the potential of the Residential Vocational Education School, as a center for experimental research, developmental or pilot programs, and a place to demonstrate the feasibility and desirability of such schools has not been fully grasped and appreciated. The Vocational Education Act of 1963 does not say that these schools are to be training centers in the same sense that the Job Corps Youth Training Centers were established by the Office of Economic Opportunity. Their objectives are and should be entirely different.

Vocational Education has been established within the structure of the public secondary school systems of this country. We have established several kinds of schools to provide vocational education. In looking at the total system, there are many opportunities for the youth, 15 to 21 years old, to receive vocational education. I would hasten to say that they need to be expanded and improved.

As implied in Section 14 of the Act residential vocational education facilities are needed in the different states at many of the schools providing vocational education. However, there are perhaps many things that can be done in the residential vocational education school environment for disadvantaged youth which are not now being done, if certain basic questions could be answered. These questions demand continuing research and training, and experimental, developmental or pilot programs carried out under controlled conditions which could be accommodated in the residential vocational education school program as indicated in Section 4 of H.R. 7380.

Many questions regarding the development and implementation of effective programs for persons with special needs are not now answerable with present knowledge, experience, and attitudes. This is true across the country. The residential vocational education school that we have in mind here offers the opportunity to change the educational, community, and home environments of many disadvantaged youths and to provide them with new and challenging motivations designed to remove their handicaps.

If solutions to the problems of persons with special needs can be obtained in an experimental setting provided by the residential vocational education school, and the findings or results can be broadly disseminated through demonstrations directed by the school, then the justification and support for similar facilities and educational programs could be established in many educational systems where such vocational education programs should be offered.

Congress is well aware of the value of research, experimentation, and training in developing sound educational programs. The Land Grant College System which gave rise to the agricultural experiment stations and the subsequent agricultural extension service and the vocational agriculture programs throughout the country represent a living example. That program has been highly successful and has contributed immeasurably to the prosperity and welfare of this country.

The experimental residential vocational education school is needed in vocational education to serve a similar role to that of the agricultural experiment station. The rest of the system is provided for by the other Sections of the 1963 Vocational Education Act and the public school systems of this country that offer vocational education. The experimental and demonstration school is needed to provide the setting whereby research can be conducted on a limited scale so as to find the objective answers which will be fed into the other parts of the vocational education system on a continuing basis. Implementation of Section 14 of the Vocational Education Act is long overdue and it should be liberally supported soon.

I have examined carefully Section 4 of H.R. 7380, which is a rewrite of Section 14 of the Vocational Education Act of 1963. The provisions in the main seem to be soundly conceived. Perhaps number 8 needs to be clarified and interpreted so as to be consistent with Purpose No. 4 of the original act. Some students may need to be enrolled in a program designed to remove their handicaps which does not initially include bona fide vocational education courses. The objective being to get them ready to enroll in the regular vocational education program to complete their training rather than to prepare them for entry into employment.

There is no question that the end objective vocational oriented instructional programs is entry into employment. However, the immediate needs of many handicapped youths may not be enrollment in vocational courses geared to labor market analysis and designed to prepare them for job entry. This is definitely the primary objective of vocational education and the motivation back of the residential school. Students should be enrolled in such vocational education courses when they are ready to benefit from the instruction. Also, they should be encouraged to continue their education until they are adequately prepared for employment which is commensurate with their capabilities, interests and aptitudes.

PURPOSE OF THE SCHOOL

It is recognized that the organizations of residential vocational education schools will differ from state to state and within states where they have more than one school. The differences will be largely due to the varying problems of the clientele to be served such as urban versus rural—Appalachia versus Los Angeles. However, all of the schools would be expected to enroll persons with academic, socio-economic and other handicaps that prevent them from taking full advantage of the regular programs of vocational education.

The residential vocational education schools would be organized to deal with the special needs of persons to be enrolled. It is my opinion that the schools would be expected to carry out at least three basic functions:

(1) to demonstrate the feasibility and desirability of operating residential vocational education schools for youth, at least 15 years of age and less than 21 years of age at the time of enrollment, who have certain academic, socio-economic or other handicaps and need full-time study on a residential basis in order to benefit fully from such education.[2]

(2) to provide student with a wholesome environment conducive to the development of social, education, and vocational competencies. To carry out these functions it would be organized into two phases.

Phase one would be orientation and exploration. The intention here would be motivation of self interest in vocational exploration, in making a vocational choice and in vocational preparation. Students would be given the opportunity to participate in a variety of experiences designed to reveal their aptitudes and interests and lead them to making vocational decisions. During this phase emphasis would be given to at least four significant areas of need: (1) exploration in crafts, practical arts, and various vocational areas; (2) related academic education in such aspects as the communication skills, reading, writing, and mathematics; (3) health and physical fitness; and (4) guidance services—personal and vocational.

Phase two would be primarily vocational preparation. Students would move to this phase when they have made a definite vocational choice.

During this phase, students would receive instruction and work experience designed to provide them with marketable knowledge and skills. They would continue in this phase until they were ready to take a job or transfer to another school to continue their vocational preparation at an advanced level.

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[2] Vocational Education Act of 1963, Part A, Section 14, Public Law 88-210, 88th Congress, H.R. 4955, December 18, 1963.

(3) to establish a facility and a situation favorable for research, training, experimental, developmental or pilot programs in vocational education which would be designed to meet the special vocational education needs of the disadvantaged youths who have handicaps that prevent them from succeeding in the regular vocational education programs. Answers obtained in this situation would be helpful in the development of vocational education programs in other institutions serving such youth.

NEED FOR TRAINING

Students that would be enrolled in the school have dropped out of school before making adequate preparation to cope with life's problems. They are unemployed or underemployed because of inadequate knowledge and skills needed for gainful employment. And, they are available for full-time study on a residential basis.

Much has been said about the status of youth with academic, socio-economic, and other handicaps. Studies reveal several significant factors that have contributed to the handicaps possessed by this group.

1. They have lost motivation for continuing their formal education toward the attainment of worthwhile life goals in the regular educational programs. They are school dropouts.
2. They have been persistent failures intellectually, socially, and economically which has led to negative attitudes, emotional disturbances, cultural deprivation, and inadequate salable vocational skills for the labor market. In many cases they fear organized authority which includes schools and teachers. They lack confidence in their ability to learn. They have fear of losing status in the eyes of their peers. Some are shy and elusive while others are aggressive. Some have had shocking traumatic experiences.
3. As a group, they vary widely in their ability to learn, educational attainment, aptitudes, interests, and social traits. They range from little or no education to some work in the senior year of high school.
4. They are deficient in basic academic education which is needed as a foundation upon which to build vocational and social competencies. Many of them are poor readers or unable to read at all, and cannot respond to written materials and other promotional literature.
5. They have problems regarding health and physical fitness which tend to suppress their initiative and ability to adequately equip themselves with the marketable skills essential for social and economic stability.
6. They have not had adequate counseling and guidance from the home or school which was needed to keep them motivated and to help them make important personal, educational, and vocational decisions.
7. They are victims of poverty, which largely has resulted from evolving developments in science, technology, and automation that has brought about shifts in employment opportunities and job requirements. This has meant increased unemployment or underemployment of the parents because they were unable to keep pace with the changing job requirements.
8. They come from homes that do not realize the value of education in preparing people for successful participation, as producers and consumers, in their socio-economic environment. Too often the parents have endured these same experiences and do not possess the material means of "know-how" to encourage and help their children overcome the deficiencies of their environment.
9. They do not have worthy vocational objectives compatible with their potential capabilities and employment opportunities.

The youth with academic, socio-economic, and other handicaps who have dropped out of school, represent a tremendous waste of human resources. They constitute a great loss of productive potential. They are caught in the lowest levels of employment and tend to remain there throughout their productive life. They have very few salable skills and only unskilled or low level semi-skilled jobs are available to them. For those who find jobs their employment tends to be temporary and possibilities for advancement are nil. In 1960, about 68 per cent of all multiple-person families and more than 78 per cent of the unattached individuals in the South lived in poverty or deprivation. The per capita income for the region ranged from $1,173 to $1,674.[8]

The numbers of workers in this group is increasing and the number and types of jobs available are rapidly changing. Automation and technological advances have had a tremendous impact on employment requirements. The unskilled and semi-skilled jobs available to these people are rapidly declining and many of them have completely disappeared. The employment outlook for people at this level of competency is not good. The unemployment rate among this group is well above that of high school graduates. In 1963, only 18 per cent of the high school graduates who went into the labor force were unemployed as compared to 32 per cent of the school dropouts.[*]

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[8] Poverty and Deprivation in the U.S., Conference on Economic Progress, Washington 6, D.C., April 1962, p. 41.

EDUCATIONAL SITUATION

The economic growth and social well-being of our people depends largely on their educational competencies. Our educational resources have been entirely too inadequate to prepare people for a satisfying way of life.

For every 100 persons over 25 years of age in this country about nine have failed to finish five years of school. More than three million people in this country are functionally illiterate. This does not include institutionalized persons or those who have gone beyond the sixth grade.

Only 42 persons out of every 100 over 25 years of age have finished high school—58 per cent dropped out before completing high school.

Education, training and retraining for productive employment needs to be intensified and expanded to enable the people to share in social and economic benefits that should be possible for them. Education and training must be encouraged and focused on the problems of illiteracy and unemployment.

Vocational education and related basic education needs to be intensified, expanded, and enriched. The programs also need to be supplemented in order to provide for the in-service training of teachers, development of instructional materials, and research, and demonstration projects. These activities should lead to greater "know-how," increased concern and dedication and more effort in coping with a continuing problem that will likely persist in this area as evolution continues in our socio-economic environment.

More than ever before, education stands between these young people and favorable employment. Schools have an obligation to provide the educational experiences for all children and youth which will enable them to make a smooth transition from full-time schooling to full-time employment and useful citizenship.

It is becoming increasingly evident that the school, the community, and the employment situation must be tied closely together. What goes on in the school should be conditioned in a large measure by the nature of the families being served, the vocational plans and aspirations of the students, and their employment opportunities.

Educational institutions must assume the responsibility for finding ways to help these youth make adequate vocational choices and make preparation for their rightful place in society. Sufficient educational facilities and competent and dedicated instructional personnel must be provided. And, a wholesome environment must be created whereby these young people will be properly motivated to avail themselves of the educational opportunities which are sorely needed in preparation for gainful employment.

School people must acquire a great deal more "know-how" than they possess now if they are going to meet the needs of the potential school dropouts and salvage those who have already quit. It is evident that new, imaginative, and creative techniques must be tried, tested, and demonstrated, when successful, if schools throughout this country are to face up to their responsibilities. The Residential Vocational Education School is proposed as a facility to serve that purpose.

OBJECTIVES OF THE SCHOOL

1. To demonstrate the feasibility and desirability of residential vocational education schools for youths, at least 15 years of age and less than 21 years of age, who need full-time study in order to benefit fully from such education.
2. To serve as a residential vocational education school for each state.
3. To provide wholesome and enriching social and educational experiences for youth with academic, socio-economic, and other handicaps designed to motivate the improvement of self-concepts and provide opportunity for education and training that would prepare them for proper entry into the "world of work" and effective participation in their social environment.

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[*] National Industrial Conference Board Incorporated, 845 Third Avenue, New York, Number 1497.

4. To involve each state in a cooperative effort, and with sufficient commitment, directed toward the amelioration and eventual solution of a vital problem (perpetual unemployment and poverty due to a lack of marketable skills and employment opportunities).

5. To use the residential school as a facility for research, training, experimental, and demonstration projects, on a continuing basis, which would center on all aspects of the situation in an endeavor to improve the effectiveness of the program and contribute to the improvement of other such programs to be developed in each state.

SIGNIFICANCE AND EXPECTED CONTRIBUTION TO VOCATIONAL EDUCATION

The residential vocational education school would provide an excellent opportunity for special attention to be given to one of the most serious problems confronting this nation. Youth in the 15 to 21 age group represent a significant segment of the population. It is during this age span that some of the most serious life decisions must be made. These young people have reached the age when they are moving away from paternal protection and discipline. They are now asked to make important decisions regarding their education—to quit or continue. They are concerned about courtship and marriage. They are confronted with the problem of vocational preparation and employment. These problems are of concern to this age group but they affect the social and economic welfare of the entire nation.

Our democratic society prospers most when every individual is prepared to make his maximum contribution—social and economic—to the society of which he is a part and at the same time is able to take advantage of all of the good things of life that society has to offer. The "Great Society" may be just an ideal, a figment of the imagination. Yet, the greatness of this country is due largely to a national concern for the rights, privileges, and welfare of every individual.

As we experience an evolution in the "world of work," we must recognize the urgency that every individual must acquire more knowledge and skills to meet the demands of a changing labor market. These changes place a greater demand on educators and others to acquire more "know-how" in developing effective procedures to help this age group make proper adjustments to their environment. Every effort needs to be made to find effective ways to motivate this group to make adequate preparation for their adult responsibilities. Likewise every effort should be made to help them understand their situation and to take advantage of the opportunities available to them.

The residential school would provide an opportunity, under controlled conditions, to study all facets of the situation that affect the student, his aspirations, and the effectiveness of his educational experiences. The students would be placed in a completely new environment. The school would be equipped and staffed for the purpose of meeting the special personal, educational, and vocational needs of this particular group. The school would be operated in an experimental and developmental atmosphere designed to seek the best possible answers in providing vocational education for youth with academic, socio-economic, and other handicaps.

The residential vocational education school should make several significant contributions to the development of more effective vocational education programs and to serving the special needs of these youths. Some of the expected contributions are:

(1) It would be a center where people could observe a residential school in operation.

(2) It would be a training center for professional personnel as well as for the students.

(3) It would be a center for conducting research, experimental, developmental or pilot projects. The findings from these projects would be made available to others who are interested in developing or improving similar programs.

(4) It would provide a facility for training research personnel and developing new research procedures.

(5) As a demonstration center, it should help focus national attention on the serious plight of the youth in this age group and motivate increased activity toward meeting their personal, educational, and socio-economic needs.

SPECIFIC OBJECTIONS

Vocational

1. To develop an understanding of the changing complexion of the labor market and the necessity for increased vocational preparation.
2. To develop an appreciation for vocational competence as a means of making possible a satisfactory standard of living.
3. To provide adequate vocational guidance services to help each student make wise vocational decisions.
4. To provide an educational program that would enable each student to make adequate preparation for gainful employment or continue his vocational education in another school.

Academic

1. To assess the educational status of each student in terms of basic education deficiencies and usual grade level equivalency.
2. To provide the basic education needed as an integral part of the vocational training. The student's vocational objective will be stressed as the student's core of interest.
3. To determine the student's grade level equivalency when he is ready to leave the school.

Social

1. To motivate each student to improve his self-concepts.
2. To develop the communicative skills of each student.
3. To provide activities at the school and in the community that would stimulate participation in wholesome group activities.

Psychological

1. To provide specialists who are qualified to deal with psychological problems that tend to interfere with the normal learning process.
2. To provide opportunity for exploration in crafts, shop work, and other individual experiences designed to deal with emotional stresses.

Health and Recreational

1. To provide a health and physical fitness program as an integral part of the school curriculum.
2. To maintain a health clinic in the school to give adequate attention to the the health problems of each student.
3. To provide recreational activities for all students to encourage the development of hobbies and the worthwhile use of leisure time.

Program Emphasis

The program envisioned for the Residential Vocational School would include as many experiences as possible designed to prepare the individual student for optimum success in coping with life's problems in everyday living and in the world of work. Such programs would serve to help the student overcome academic, social, emotional, occupational, health, and other deficiencies which at the onset of his enrollment prevent him from succeeding in regular educational experiences or securing favorable employment.

ORIENTATION PROGRAM

The school would include a thorough orientation program to aid each trainee in acquiring certain basic understandings of his opportunities while at the school and in making satisfactory adjustments to living and studying arrangements in the school. Included in this orientation program would be experiences in basic academic education, health education, and physical fitness. Exploratory experiences in the different crafts, practical arts, and vocational areas would also be provided for all students. They would be continued until the vocational aptitudes and interests of each student had been determined. Undergirding the entire program of the school would be strong emphasis on guidance services, both personal and educational, and on continuous evaluation.

OCCUPATIONAL TRAINING PROGRAM

Once the aptitudes and interests of the students have been determined a wide selection of offerings for specific occupational training would be provided in the school. The curriculums would be the object of continuous study, research, evaluation, and revision. Practices and procedures that prove to be effective in serving the needs of students would be demonstrated for the purpose of indicating the desirability and feasibility of the Residential Vocational School.

Some program offerings in all phases of vocational education would be provided, thus giving students a wide range of experiences and a sound basis for making a vocational choice. It would also provide media for research in all significant aspects that influence the effectiveness of vocational education programs.

Programs offered in the school would not be limited to those programs which have been proven successful in the past. If this program is to be truly experimental, new, imaginative, and creative, programs and techniques would need to be explored in the process of developing and adjusting curriculums to meet the changing needs of the students. All facets of the school, therefore, would need to be flexible enough to facilitate a continuously changing curriculum.

It is envisioned that in this comprehensive vocational school there would be many choices among vocational subjects. An individual's program of studies would not be a strict pattern or sequence of courses in a particular vocational area, but, rather a program planned to meet the needs of each individual. Such a program would draw from any or all areas of instruction provided in the school. In addition, it is anticipated that some courses and experiences would be tailor-made to meet specific needs of individual students. Thus, a focus on the needs of the individual student would be of paramount importance in all phases of program development.

Set time limits or structured length of courses would be avoided as much as possible to allow every person to progress at his own rate. A student would move along in the various phases of instruction based on his level of attainment related to his ability and achievement.

ACADEMIC EDUCATION PROGRAM

Since trainees would be school dropouts, programs in basic academic education would need to be provided to equip them with reading, writing, mathematics, and other communicative skills needed for personal and job success. It is intended that experiences needed to bring about an upgrading of the student's basic academic skills would be integrated into his total program of studies and oriented to his vocational objective. These experiences more than likely would not be provided in the usual manner as formal classroom instruction. Instead new and imaginative techniques would be employed for motivating interest and bringing about improvements in the essential basic skills.

Nevertheless, such programs would be provided by qualified, certified teachers in the respective subject areas. Appraisals of the status of students through testing, surveys, conferences, and other acceptable means for placing students at the appropriate educational level would be a continuous aspect of the program.

Appropriate teaching devices would be provided and/or developed for the age, maturity, and educational level of the students. New teaching methods, techniques, and materials would be developed and used with students whose past experiences in school have left them with an aversion to studies and to studying.

Here, too, cooperative research efforts on the part of all concerned would provide firm bases for working with students in the academic phases of their program.

SOCIAL AND CULTURAL PROGRAMS

In addition to preparing students for gainful employment the program would give special emphasis to providing activities and experiences designed to promote social and cultural growth.

Programs in health, recreation, and worthwhile leisure-time activities would be provided to advance development in these areas. Programs in personality development, homemaking and family relations, would be provided for these youths. All of these programs would be needed to some degree by all students. Most studies indicate that these students have been socially and culturally deprived and have limited experiences in these areas.

Some of these programs and activities for social and cultural growth would be provided on the campus of the residential school. In addition, resources in the community for such development would be utilized to the fullest extent. Church, civic, school, recreation, and other resources would be asked to cooperate in bringing about an integration into community life which would be necessary if these youths are going to acquire the social, cultural, and economic experiences essential in their personal development and in preparing them for gainful employment and responsible citizenship.

Mr. Pucinski. You may proceed, Dr. Simpson.

Dr. Simpson. Thank you, Mr. Chairman. First, I would like to say that we are fortunate that you serve in the capacity of chairman of this General Education Subcommittee. I am especially proud that my own State of Illinois has you as one of its outstanding Congressmen.

The American Vocational Association is an organization of 40,000 members. As president of the AVA, I have become increasingly aware and proud of the dedication of our members and of our staff in Washington, to the mission of preparing our young people and adults for their occupational roles in life, including the occupation of homemaker.

A major directional force involved in vocational education is the increased emphasis on cooperative activity among the fields of service within vocational education. I think you will see this trend reflected in the testimony that will be given.

Impetus to such development will surely be provided by the Vocational Education Act of 1963. This has been one of the very fine results of this act.

The AVA wishes to present this morning six witnesses who are specialists in vocational education. They are Dr. Lowell Burkett, who is executive director of the AVA; Dr. Byrl Shoemaker, representing the National Association of State Directors of Vocational Education and who is the Ohio State director of vocational education; Mr. Philip Seagren, vice president of the National Council of Local Administrators from Miami, Fla.; Dr. George Brandon, representing vocational teacher education, Dr. Brandon is from the University of Pennsylvania; Dr. Catherine Dennis, State supervisor of home economics in North Carolina; and Mr. Everett Hilton, State director of vocational education, Frankfurt, Ky.

Mr. Burkett will begin our testimony.

Mr. Pucinski. We would like to welcome all of you to the committee.

Mr. Hawkins. May I ask, Mr. Chairman, do they have any affiliation west of the Mississippi?

Dr. Simpson. Yes, indeed.

Mr. Burkett. We have many fine members in California.

Mr. Pucinski. I might say, we have scheduled a witness from Los Angeles who is going to discuss this program separately.

Mr. Hawkins. I am glad you are giving us special attention.

Mr. Burkett. Mr. Chairman and members of the General Subcommittee on Education, we appreciate this opportunity to appear in support of legislation to expand and improve vocational education. We commend you, Mr. Chairman, for calling this series of hearings. We believe that you are dealing with one of the most important issues to come before this session of the 90th Congress.

My statement has two major points of emphasis:

The first deals with the resolutions approved by the American Vocational Association House of Delegates at its last annual conference in Denver, Colo. on December 6, 1966, and the second major part of my testimony will highlight the results of a survey made by AVA projecting needs in vocational education.

If you will turn to page 2 of my prepared statement you will note these resolutions. The first deals with the proposed amendments to Public Law 88-210. This resolution reflects our concern that the maximum amount authorized in the 1963 Vocational Education Act is far from adequate for grants to the States.

Additional funds are needed to further develop vocational education in the construction of classrooms, laboratories, shops, and dormitories; providing instruction equipment and supplies and necessary personnel for administration, supervision, and instruction in the program.

The second resolution deals with further expansion of vocational education and essentially directs itself to the proposal that was presented by Commissioner Howe, yesterday, calling for a need to further expand the guidance function in vocational education.

We pledge ourselves to join with people responsible for elementary, secondary, and postsecondary schools in developing programs of occupational education appropriate for all students and participated in by all students in elementary schools, junior and senior high schools, and post-high-school institutions.

We believe, however, that certain criteria should be followed in developing such a program and on page 5 of my prepared statement, I point to these criteria; that programs in the practical arts, adapted to all students, should be expanded and extended downward into the early grades.

All students should receive realistic occupational information and guidance adapted to individual needs, and provided at appropriate times in their school careers. Parents should be aided in guiding their school-age sons and daughters in making realistic occupational choices and in selecting educational programs related to their choices.

All professional personnel in a school system who have a relationship to occupational choice, competence, and advancement should be involved in planning programs of occupational education. Schools should provide placement services when the students are ready to enter the labor market.

Schools should provide supervised work experience.

The next resolution deals with the disadvantaged youth. Many youths in our society lack the stabilizing influence and guidance derived from a well-adjusted home and find it difficult to adjust to traditional public school programs.

We believe the 90th Congress should give strong support to amendments to Public Law 88-210 that will provide for the expansion of vocational residential schools on a State and regional basis.

The next resolution in my prepared statement deals with the preparation of vocational education personnel. There is a critical shortage of people in this field. There is an urgent need for vocational teacher aides, teacher technicians, researchers, coordinators, supervisors, teacher educators, administrators, and other vocational specialists.

We sincerely hope the 90th Congress will enact legislation to amend the Vocational Education Act of 1963 to provide massive support for training vocational education personnel.

The resolution on page 7 of my prepared statement deals with legislation for home economics education. Whereas, women are entering the labor market in increasing numbers and thus are assuming the roles of a dual function as wage earners and as homemakers, home economics instruction promotes the improvement of home and strengthening of family life and youth and adults (including those economically, socially, and culturally deprived) can profit by participation in both home economics instruction and wage-earning courses and the curriculum offerings in home economics which prepare for the vocation of homemaking include the development of competencies in the following subjects:

Foods and nutritions, housing and home furnishings, child development and family relationships, family economics and home management, clothing and textiles.

We believe that the law should be liberalized so that we can use funds for both useful and gainful employment. We sincerely hope, Mr. Chairman, that this session of the 90th Congress will enact legislation as requested in these resolutions.

Early this year the American Vocational Association with the support and cooperation of the State directors of vocational education conducted a survey or study to assess the extent to which additional support is needed in order for the States to move forward in meeting vocational education needs of all persons of all ages in all communities.

These figures are based on the assumption that the Federal, State, and local matching will remain at the ratios now provided under the Vocational Education Act of 1963 and in the bills being considered by this subcommittee. Following is a summary of this study:

The figures reflected in this study do not include estimates from the States of Montana, North Dakota, Wyoming, the District of Columbia, and the Virgin Islands.

I would like to briefly comment on this study and point out some highlights of our findings. You will notice it is estimated for fiscal 1967 we need $415 million for Federal funds. As you know the appropriation for fiscal year 1967 was $285 million for the total vocational education program. You will note for fiscal 1968, the States have estimated a need for Federal funds in excess of $560 million; in fiscal 1969 more than $656 million, and by fiscal 1970 the States have estimated a need for $1.2 billion of Federal funds to fully support the vocational education needs.

You will note that in fiscal 1967 better than $726 million of State and local money will go into the vocational education program.

It is worth noting that by 1970 the State and local communities, due to the fact they are probably utilizing all of their taxing power, will probably not be able to fully support the total amount needed for vocational education on the 50–50 matching basis.

On page 10 of my prepared statement, you will find a summary of Federal, State, and local moneys needed to fully support the vocational education program. The estimated enrollment in vocational educational programs jumps from over 7 million students in fiscal 1967 to over 9 million students in 1970. These estimates include both youth and adults.

Mr. **Pucinski.** Would you draw the distinction between the first figure on page 9, the estimated Federal funds necessary and so on, and the top figures on page 10?

Mr. **Burkett.** The first figure on page 9, fiscal 1967 calls for $414,-988,890, while the local and State support was $726,718,895. The $1,141,-707,785 figure at the top of page 10 is a total of these two.

Mr. **Pucinski.** Thank you.

Mr. **Burkett.** I would like to emphasize that estimated enrollments in vocational education will exceed some 9 million students by 1970.

This includes not only students in high school, but students in post high school programs and adult programs.

The estimated Federal support needed for constructing, equipping, and remodeling facilities to adequately meet the needs for vocational technical education by 1970 is over $354 million. Under the present act States must match Federal funds and this is assuming that the States would be able to match Federal funds for these purposes.

Taking an average, the States have estimated the cost of constructing and equipping one residential school at $4 million. This is assuming 100-percent Federal funding.

Assuming 100-percent Federal funding, the estimated average cost to support one student for a 1-year period is $1,943.

You will note that by 1970, an estimated 96 residential vocational schools are needed.

There are 124,202 teachers now engaged in vocational education programs. Of this number, 57,438 are part-time teachers. These are teachers who teach adults in evening schools in most cases, or who teach on a part-time basis.

I call your attention to the estimated needs for *vocational education* teachers. In fiscal 1967, you will note we needed 134,220 teachers, but we only employed 124,202, so we are approximately 10,000 teachers short this current year to fully meet the needs of the program. By 1970, an estimated 179,888 vocational teachers will be needed. At the present time we are investing a total amount of $15,559,862 in our teacher-training program. State and local people are investing about $2 for each $1 of Federal funds for teacher education in vocational education. There are now 1,956 teacher trainers, of which 1,018 are full time and 938 are part time.

I call to your attention the estimated Federal support needed for preservice, inservice, internships and fellowships for training of vocational teachers. In fiscal 1967, over $20 million was needed and moving up to an estimated need of over $29 million in 1970.

These estimates are made assuming that we would continue to train teachers on the same basis that we have in the past. These figures do not reflect stipends and that we must pay stipends if we are to attract more teachers.

This year the Congress appropriated only $10 million for work study. It is interesting that the States estimate they could have used $25,828,314 for this purpose estimate to serve an estimated 323,403 students through the work-study program.

Forty-one States reported that the differential in matching among the various work-study programs has created problems. For example, in the neighborhood youth program the amount of money the students may earn is much more than is allowed in the vocational education work-study program.

The estimated Federal support for vocational technical education research in 1970 is in excess of $25 million.

Mr. Chairman, we sincerely hope that the General Education Subcommittee will give serious consideration to these estimated needs and to the resolutions adopted by our association.

Thank you.

Mr. PUCINSKI. Mr. Ford?

Mr. FORD. Thank you, Mr. Chairman.

I am sorry I won't be able to stay to hear everyone, we have witnesses coming before the Rules Committee at 10:30, and I must go over there.

I notice that last year and the year before when we were talking about vocational education, we always started out on the presumption vocational education is good, it works and produces some salutary advantages to those exposed to it. I am now observing statements for the third year before this committee that start off on that presumption, but give nothing in the way of evidence that this is actually true.

I am playing devil's advocate for a moment. Now that we are getting into the amounts of money we are talking about, the massive size of the programs we had before, we are in fact discussing a truly national approach to uniform support for vocational education. What has been developed in recent years in the way of followup with young people leaving our high schools and going out into the business world without going on to college or some advanced training that indicates we are doing any better today than we were doing 10, 20 or 30 years ago? I have a personal suspicion that in some parts of the country we are not doing as well as we were doing several years ago because the emphasis has shifted so strongly to the academic approach in high school.

At the opening day of high school in the homeroom students are asked how many are going for academic degrees and 90 percent put their hands up, 20 percent at best of these graduates will never see the inside of a college.

What has changed? What can we point to as something that is happening to convince us we are going in the right direction?

Let me finish up by saying there is a further thought if we are not able to demonstrate change pretty soon. Maybe we ought to take a look at the whole thing. Do we know whether we are doing any better or worse?

Mr. **Burkett.** This year the Advisory Council on Vocational Education is making a careful study of this matter. The Council's report will be submitted to the Congress by January 1, 1968, and we hope the Congress will study it carefully.

I believe you will find in the testimony of some of the witnesses here today that many examples will be given on what is happening in given States. We trust that the study now underway by the Advisory Council on Vocational Education will give a comprehensive picture of the program nationally. We believe there has been considerable progress made.

Mr. **Ford.** I would like to ask you, as the leadoff spokesman for your organization, if you won't make an effort before the record is closed on these hearings to give us some of this information?

Mr. **Burkett.** I will be glad to. We will provide for the record any number of documents from the States on what is happening in the program.

(The requested information follows:)

SELECTED REMARKS—FROM STATE REPORTS OF VOCATIONAL-TECHNICAL PROGRAM DEVELOPMENT, FISCAL YEAR 1966

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, OFFICE OF EDUCATION

Alabama

Throughout the State vocational-technical schools are being constructed or expanded to serve secondary youth, out-of-school youth, and adults. The construction of 16 new State vocational-technical schools and the expansion of several others will provide 27 such schools for out-of-school youth and adults. Secondary students will be served though a system of 24 area schools. . . . Special programs for students with socioeconomic, academic, or other handicaps are being designed as part of the area schools' programs.

Alaska

Two area vocational schools, authorized by the legislature in 1961, will now be possible through a $5-million bond issue accepted by the voters. This bond issue will provide for a total of five new schools in the statewide plans.

Arizona

The State Legislature appropriated a 163-percent increase in funds or $1.9 million for vocational education during 1965–66. . . . Enrollments increased 139 percent over 1965 totals in post-secondary programs and approximately 34 percent in secondary programs. During 1966, 310 students were enrolled in work-study programs in 40 schools. Approximately 200 students were enrolled during the summer.

Arkansas

The State appropriated about $1 million for local vocational programs in 1965 and an aditonal $70,000 for State staff expenditures in each year of this biennium. The General Assembly in 1965 provided for community colleges which may include vocational training in their curriculums. . . . Enrollments in secondary and adult programs increased during fiscal 1966, but the most significant increases were in post-secondary programs. Enrollments in post-secondary trade and industrial education almost doubled; they more than doubled in office occupations. Estimates indicate that approximately 2,000 students at secondary and post-secondary levels were enrolled in work-study programs.

California

State funds were used to establish, expand, and improve area vocational schools serving as centralized facilities shared by several comprehensive high schools. Seventy-six junior colleges provided continuing vocational education at the post-secondary level. High school curriculums are increasingly being oriented toward further in-depth occupational education at the junior college level.

Colorado

Secondary level enrollments in vocational programs increased 18 percent; post-secondary enrollments, 36 percent; and adult enrollments, 11 percent—all over the preceding year.

Connecticut

The establishment of a State system of regional community colleges has resulted in vocational programs at the associate degree level. Area vocational programs are offered in (a) 15 State vocational-technical schools for industrial trades, (b) 2 locally operated occupational regional centers, (c) 4 State technical institutes serving on a regional basis, and (d) 3 community colleges.

Delaware

Within the next two years Delaware will have a total of six area vocational-technical schools, four high schools, and two post-high schools offering vocational and technical education. . . . A research Coordinating Unit, funded under the Vocational Education Act of 1963, will coordinate studies and develop research on occupational education at local and State levels.

District of Columbia

Significant changes are being made in the District of Columbia's program to capitalize on experiences in the administration of vocational and technical education. Instructional programs are being revised to increase the employment potential of graduates by involving students in more than one kind of vocational training.

Florida

A new unit established at the State level will be responsible for program evaluation. Professional staff in this unit will formulate objectives for programs and follow through by determining whether and how those objectives are achieved.

Georgia

During the past 4 years 21 area vocational-technical schools have begun operation. . . . Five new area vocational high schools will open in the fall of 1966, making a total of nine such schools in the State. . . . The completion of the State's planned system of 23 area vocational-technical schools and 2 State schools will require approximately $25 million in State and local funds for construction. . . . In the fall of 1965 enrollment increased by 130 percent over 1964, yet several area schools turned away students for lack of facilities. Another 40-percent increase is anticipated for the fall of 1966. . . . The Vocational Education division through the research coordinating unit is making a special study of comprehensive guidance services in area vocational-technical schools.

Guam

The Trade and Technical School began a pilot program in diversified occupations in fiscal year 1966 with students attending school one-half day and working in industries one-half day. . . . The United States Navy initiated a pilot course for training apprentices at the Trade and Technical School. The Navy also established a new program in fiscal year 1966 granting scholarships to employees of the Navy civil service who had been out of school for one year or more. Twenty-five of these students received training at the Trade and Technical School during 1966.

Hawaii

The State's system of community colleges was expanded by increasing the number of instructional areas offered in existing facilities. Plans are being made to expand the programs at Maui Community College and at Honolulu Community College. Another community college is to be established in the Leeward Oahu region.

Idaho

Programs in vocational counselor education at Idaho State University and the University of Idaho have started. Counselor-educators were added to the institutions' staffs and will be of great assistance in training well-qualified vocational counselors.

Illinois

Six area vocational schools were approved during 1966. One of these is a $5.5 million complex on a 7.5-acre campus in Chicago. One hundred and twenty-five counselors offered vocational guidance services in pilot projects in 22 attendance centers. As a result of these programs over 100 schools are expected to participate next year. . . . The work-study program operated in almost 150 school systems, with 2,006 students participating during the regular school year. The summer program included 136 school systems with an additional 2,341 students.

Indiana

Teacher education programs at State universities are being expanded to increase teacher training staff and provide improved pre-service and critically needed in-service teacher education.

The Research Coordinating Unit is aiding in the recruitment of vocational-technical teachers and administrators, assisting in coordinating research, and strengthening the State vocational guidance program by identifying guidance problems.

Iowa

In 1965 the General Assembly provided for two or more counties to merge school systems—a move which assists in the rapid development of area schools. The State Board of Public Instruction has approved the plans of 14 localities to develop 6 area vocational schools and 8 area community colleges which will offer vocational curriculums.

Kansas

The amount of local funds used in operating area vocational-technical schools increased by 163 percent. State funds allotted to area schools increased 23.5 percent; local expenditures in the area school building program increased 27 percent. . . . Enrollment statistics show some change in program emphasis. The greatest increases occurred in adult and post-secondary office education, 61 percent; in technical education, 22 percent; and in health occupations, 15 percent. . . . A pilot program using team teaching and allowing students on-the-job observations of various occupations has been operating for 2 years in the Paola Comprehensive High School. It is a program for juniors and seniors which places the students in part-time work experience during the senior year.

Kentucky

The State Legislature's appropriation for vocational and technical education through the 1966-68 biennium set a new record high. The number of high school vocational units, which determines the State appropriation, was increased from 853 in 1966 to 1,078 for 1967 and 1,253 for 1968. The appropriation for operating programs for out-of-school youth and adults was also increased from $2 million in 1966 to $2.7 million for 1967 and $3.4 million for 1968. A bond issue of $3.4 million was authorized by the Legislature for the construction of area vocational schools. . . . Within 5 years the State plans to have area vocational schools constructed within commuting distance of most high schools.

Louisiana

In October 1965 the State Board for Vocational Education approved a resolution for providing prevocational programs. Since then 22 programs have been initiated offering basic mathematics, reading, and science to students who need remedial studies to progress and succeed in a vocational program.

Twelve new programs in visiting homemaker services were added to area school curriculums. Other home economics programs offered for the first time are management training for food service, dressmaking and alterations, and household skills.

Maine

The State approved regional technical and vocational centers at Augusta, Waterville, and Westbrook for operation during 1966-67. They will operate as area schools with present facilities but will also plan expansions.

Maryland

A recent analysis of demands for vocational school construction over the next 5 years indicated that about $50 million will be needed if the requests of local school systems are to be met.

Massachusetts

Massachusetts is continuing its $100 million vocational-technical school building program. Five regional schools are under construction; two of these will open in September 1966. Five other schools have been approved and directors and architects are being selected. Another six are being planned. . . . Bureau staff members cooperated with the Harvard University NEEDS Vocational Decisions project. The city of Quincy, the American Institutes for Research, and the Bureau are collaborating in a project on the design for a vocational-technical school. Surveys are being completed to ascertain whether three additional regional vocational-technical schools are needed.

Michigan

The Legislature appropriated an increase of $1.4 million for fiscal year 1966. Of this amount, $1.3 million was for area school construction. Legislation enacted now permits intermediate school districts to issue bonds for area vocational school construction. . . . Enrollments in all vocational programs totaled 265,000. This was about a 48-percent increase over the previous year. Significant enrollment increases occurred in health occupations, 46 percent; technical programs, 43 percent; and trade and industrial programs, 29 percent.

Minnesota

Preliminary enrollment reports for 1966 indicate approximately 30,000 students in preparatory programs and 71,000 in adult supplementary programs. This represents about a 15-percent increase over previous enrollments. Post-secondary enrollments alone increased about 29 percent. Over 300 students were enrolled in work-study programs.

Mississippi

Estimated enrollments reflect changes in subject matter emphasis. In fiscal year 1966 the total enrollment in distributive education increased about 33 percent; in trade and industrial education, about 22 percent; and in health occupations, 15 percent. Technical educational enrollment was up and will be expanded next year; home economics enrollment remained about the same, and that in agriculture decreased. New Programs in office occupations were initiated with over 1,700 enrolled.

There were about 2,000 students in work-study programs, and over 3,000 enrollees in programs for students with special needs.

Missouri

Dramatic growth has occurred in developing area vocational school districts. Thirteen of these were approved during the fiscal year 1966. The State's network of area vocational schools will be complete when area vocational school districts are designated and developed for three remaining areas—the northwest, west central, and south central areas. . . . The most dramatic change occurred in work-study programs, which had an enrollment increase of 285 percent.

Montana

During the year the Research Coordinating Unit, established from section 4(c) funds of the Vocational Education Act of 1963, conducted surveys of occupational needs and vocational interests at the local level in five communities.

Nebraska

The $3-million Nebraska Vocational-Technical School at Milford, a 12-month resident school, will construct additional shops and classrooms using approximately $296,000 in State funds matched with Federal funds.

Nevada

Vocational and technical education has increased both in quality and in number of programs. However, lack of funds has limited its expansion. The State appropriation for vocational-technical education, fiscal year 1966, was $336,140. . . . Local and State funds matched Federal funds approximately three to one. County school districts' requests for Federal assistance exceeded funds available by $127,000. When local money for matching is considered, the total represents an unmet need of $400,000 for vocational education.

New Hampshire

Three new vocational institutes are scheduled to open in September 1966.

New Jersey

An appropriation of $2 million to match Federal funds provided under the Vocational Education Act of 1963 was recommended by the Governor and approved by the Legislature. This is a 100-percent increase over the previous year. . . . Vocational education was extended to 7,000 additional students through pilot programs in occupational education in 110 high schools; these initially cost $2.3 million. This represents about a 50-percent increase over the previous year's secondary school vocational enrollment. New cooperative occupational programs, including 75 in trade and industrial, 30 in office, and 44 in distributive occupations, were approved in the past year. Rapid expansion should result in a total of 300 cooperative programs by 1968.

New Mexico

The 2-year technical institutes at Eastern New Mexico University at Portales, New Mexico Highlands University at Las Vegas, and New Mexico State University at Las Cruces are also expanding their vocational curricula. Graduates from these institutes are in great demand. . . . By September 1967 it is anticipated that a total of 32 area programs will be in operation in rented or permanent facilities.

The selection of programs in the new centers is based upon the results of multi-county occupational surveys. . . .

Eleven new area programs began in September 1965 and provided occupational training for 4,047 new students at the secondary level. Occupational education enrollments at the community college level totaled 29,690. . . . Over 20,000 students, an increase of about 50 percent over the previous year, were enrolled in work-study programs at secondary and community college levels.

North Carolina

The State Administration for Vocational Education believes that vocational-technical training should be within commuting distance of all citizens through a comprehensive system beginning at the early high school level and continuing through two years of post-high school technical education.

North Dakota

The State Board, in cooperation with the Data Processing Division of the Department of Public Instruction, designed a new fiscal recording and reporting system and a procedure for keeping an up-to-date equipment inventory.

Ohio

A total of 24 vocational school districts have been organized by local boards of education. These vocational school districts will establish area vocational-technical education centers to provide comprehensive programs for youth and adults. . . . Renewed efforts were made in the seven metropolitan areas to extend vocational education to more youth and adults.

Oklahoma

"Tele-communications," one of the most advanced computer systems, is being established as part of vocational-technical training in data processing. It will be a 2-year post-secondary course of study in data processing and systems analysis. The program consists of a center in Oklahoma City to which 12 to 16 smaller computer centers at State schools can be connected by direct telephone. This will make sophisticated computer training programs possible for individual schools.

Oregon

Vocational and technical education at the post-secondary level continued to expand rapidly. In 1965-66 community colleges enrolled over 25,000 students, equal in man-hours to the enrollment of 8,000 full-time students representing an increase of 61 percent over the pervious year. Over 35,000 enrollees are expected to register for 1966-67.

Pennsylvania

In 1962 five area vocational-technical schools were in operation. Now, 23 area vocational schools offer courses, and several new facilities are under construction. An additional 31 schools are planned for construction during fiscal year 1967. There will then be over 50 area schools in operation throughout the Commonwealth.

Puerto Rico

Enrollments in post-secondary programs increased 41 percent; secondary enrollments increased almost 5 percent. There were 2,225 enrollees in work-study programs, an increase of 1,197 over fiscal year 1965.

Rhode Island

The State Board of Education established a long-range policy for vocational-technical education which includes expanding and improving vocational-technical secondary programs in seven area comprehensive high schools and a regional vocational high school in the Blackstone Valley. In addition, at the post-secondary level, the State Board and the Board of Trustees for State Colleges agreed to provide vocational programs in junior colleges.

South Carolina

Twenty-six new secondary trade and industrial programs, involving 22 occupational fields, and 27 post-secondary programs were established. Practical nurse education programs were offered in 20 schools; 3 of these programs were new. Two programs for surgical technicians and two programs for nurses' aides were offered for the first time. Dental assistant training will be added in 1966-67. Office occupations programs were offered in 107 high schools, enrolling 2,068 students.

South Dakota

Vocational education consisted primarily of agriculture, home economics, and distributive education until the passage of the Vocational Education Act of 1963. Programs in trade/industrial and technical education are almost 100 percent new since then.

Tennessee

The State's vocational-technical education plans are directed toward comprehensive programs meeting the occupational training needs of students beginning in high school and continuing through area school, technical institute, junior college, or adult supplementary training. When present construction is completed, there will be an area school within 25 miles of every student plus one technical and one junior college within each geographic division designated within the State.

Texas

Prior to enactment of the Vocational Education Act of 1963 not a single area vocational school existed in Texas. To date 84 area schools have been established; 31 of these were established in fiscal year 1965 and 53 in fiscal year 1966. Construction has been completed in 21 area vocational schools; buildings are under construction at 28 others; and 35 more are in the planning stage. Studies show that a total of 150 area schools will be needed for adequate vocational-technical education.

Utah

At the recommendation of the State Advisory Council on Vocational Education a study to be made of vocational and technical education was approved by the State Board for Vocational-Technical Education. . . . Another survey to study post-secondary training and facility needs was approved by the State Board for Vocational Education. A committee of three vocational educators will report in six months with recommendations on personnel, curriculum, facilities, and suggested accreditation standards for post-secondary vocational-technical education in Utah.

Vermont

Several new programs were conducted, especially in the service occupations. These included training for agriculturally related occupations, wage-earning home economics, health occupations, office occupations, building trades, food preparation and service, and small engine maintenance and repair.

Virginia

Secondary program enrollments increased 10 percent, and post-secondary enrollments increased over 38 percent. A work-study program began with 1,158 enrolled. The enrollment in special needs classes increased over 400 percent. Figures for 1966 reflected a slight decrease in the enrollment in adult classes.

Virgin Islands

During 1965 there were 2,029 students enrolled in vocational education; during 1966 the number increased to 2,364. During 1966, 1,338 persons were enrolled in federally assisted vocational education programs.

Washington

An experiment was undertaken in cooperation with the Boeing Company that involved 16 high school districts. A program was established in aircraft assembly work for senior boys who would be available for employment at the close of the school year. The program operated during late afternoon hours and Saturdays in addition to the full high school schedule of the enrollees. A large number of the students enrolled during the spring of 1966 are now employed at Boeing. As a result of this experiment, more programs of this type are to be established.

West Virginia

Three 1-week seminars dealing with program planning, development, and operation were conducted for 20 county vocational supervisory staff. Post-secondary technical education programs at Bluefield State College and West Virginia Institute of Technology were evaluated and approved.

Wisconsin

Enrollment estimates indicate continued increases. Although 3,000 students were turned away from post-high school programs, for lack of facilities, schools did enroll 2,000 new students in these programs. In 1960–61 students in full-time post-high school programs totaled 5,000; in 1965–66 the total was over 20,000.

Schools tried solving the space problem in several ways. One method was to increase the school day to 14 periods and offer part of the full-time curriculum in evening hours.

Wyoming

Special basic education in literacy was given to 389 adults to help them profit from other vocational instruction.

Mr. Ford. Thank you very much.

Miss Dennis. In North Carolina we are making an independent study of a randon sampling of students in 184 high schools in all aspects of vocational education.

I spent all of last week in five different schools collecting data. We are getting 97 different forms of data from each school in the home economics program alone.

Unfortunately, we do not now have the compiled data ready for the findings, but we will have by the middle of the summer a very good estimate, we feel, of the strength and weaknesses in the program of North Carolina. This is all of the programs.

We hope this summarization will help the committee in its deliberations.

I observed a youngster with an IQ of less than 70, from an economically and socially deprived home, in a class last September and then returned to 2 weeks ago. This youngster has had the opportunity to learn some skills, to participate in the study of her own social hygiene needs, and personal hygiene. She is better dressed, she is eating a much better diet, she has more poise than I thought possible for a young person of this age to acquire, and this was done through the good work of an understanding and dedicated home economics teacher.

On Monday of last week, I went to another school and observed a class composed of 23 big, overaged boys. These boys were, as the teacher described, the outcasts of the school. I have never observed a more alert, interested group of boys. Interestingly enough, what they were discussing was what do you mean by the specifications of a building in a home. The class went away with a much greater understanding of consumer education, the cost of rearing a family, the wealth of available resources to the family and interpersonal relationships which will certainly establish a better home relationship than they come from at the present time.

Mr. FORD. In the poverty program as a result of the constant attack on the Job Corps, we have had to develop rather quickly a followup study to try to find out what happens to these people when they scatter from a Job Corps center, when they finish a course of training after 1 month, 2 months, or 3 months, to determine whether there is a discernible change in their life that can be attributed to the Job Corps experience.

One of the resolutions you have here strongly supports residential vocational education for underprivileged children, young people coming out of a home life that is not conducive to good educational experience. The Department of Conservation in almost every State, when it undertakes to spend the taxpayer's money on the propagation of fish, counts them and then counts them again somewhat later to find out what happens. I know you get some educators upset when you suggest this, but we do not do much followup in this country. Somehow we are afraid to find out whether what we do in education works.

Whenever you talk of followup studies, you get all kinds of reasons why it couldn't, or shouldn't, be done. It is being done with the poverty program now, and I think the same sort of followup will have to be done on these other programs. A study will have to be made of how these people will compare with similar groups. I hope that will become part of the record before we conclude.

Miss DENNIS. The youth about whom I am speaking are children enrolled in the high schools in their own home community, that is where we are attacking the problem.

You can't hope to move all these youngsters into a residential situation. We would like to see the homes of the community improved through the concerted efforts of the school education program and the social welfare program so that they become functioning citizens right where they live.

Mr. PUCINSKI. Congressman Ford asked a good question, and I notice a good study is being done for the Office of Education on these vocational training programs. I think you are absolutely right, we need more.

This kind of question reminds me of the preacher driving down a country road, and he saw a farmer clearing off a field full of stumps, and rocks, and other obstacles. The preacher stopped and said, "John, it sure is good to see you and the Lord doing such a good job of clearing this field." John said, "Thank you, Preacher, but you should have seen it when the Lord had it alone."

I think we don't know the full impact of these programs, but we have a right to ask ourselves where would we be today if we didn't have these programs.

Mr. SHOEMAKER. I would like to comment to that.

There has been a study made by the American Institution of Research using Ford Foundation funds and without vocational educators entering into it. Here is a summary. Let me read you three or four items.

The completed phase of the study surveyed the post-high school occupational and educational experiences of 10,000 vocational and 3,000 academic graduates selected from 100 high schools located in 38 States. The graduates ranged from 2 to 11 years out of high school.

Some major findings are:

Vocational graduates get their first full-time job after graduation much quicker than do academic graduates. The average time to get a first full-time job for vocational graduates is less than 6 weeks. Fifty percent get their first full-time job within 2 weeks after graduation.

Vocational graduates enjoy substantial greater employment security than do academic course graduates without college education. The median 1953, 1958, 1962 graduate was 95-percent fully employed.

Vocational graduates have greater accumulated earnings over the 11-year period covered by the survey than do academic course graduates with no college education.

This is part of a summary of about 15 points of this study which was done without benefit of vocational educators involved with it, which points clearly to the advantage, the type of thing you are asking, "What is the proof?"

I think you have a right to ask this question, what is the proof of the pudding in terms of vocational education.

I would be pleased to offer this for the record.

Mr. PUCINSKI. Yes, I would like that in the record at this time if there is no objection.

There is no objection. It is inserted.

(The information follows:)

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Some major findings are:

> Vocational graduates get their first full-time job after graduation much quicker than do academic graduates. The average time to get a first full-time job for vocational graduates is less than six weeks. Fifty per cent get their first full-time job within two weeks after graduation.
>
> Vocational graduates enjoy substantial greater employment security than do academic course graduates without college education. The median 1953-1958-1962 graduate was 95 per cent fully employed.
>
> Vocational graduates have greater accumulated earnings over the eleven-year period covered by the survey than do academic course graduates with no college education.

Mr. PUCINSKI. Mr. Scherle.

Mr. SCHERLE. Thank you, Mr. Chairman.

I am sorry I am late, there doesn't seem to be a sufficient amount of time to go around anymore.

Mr. PUCINSKI. My colleague will learn that the more he stays here.

Mr. SCHERLE. I think you are right, Mr. Chairman.

I would like to say initially that I have always been a firm advocate of vocational education training. It was my pleasure to be part of the Iowa Legislature 2 years ago that set up 22 area trade schools in our State.

I have always felt that in Iowa we have educated our young people through the senior year in high school and then we have a big void. There are many reasons why our young people did not attend colleges. Perhaps they are not academically inclined, or financially able to meet the demands, or perhaps they would rather work with their hands than become white-collar workers.

I think this is very important. But I think the basis for all of this starts in our high schools and I know in our State of Iowa we have a dire need for people in the field of vocational education training.

Mr. PUCINSKI. Excuse me a second, these young people are leaving. Are you the group from Kentucky?

VOICE. Yes.

Mr. PUCINSKI. We are very happy to have you here and I would like to note for the record, if my colleague will yield, these young people are visiting Washington.

They are leaders in the 4-H Club and are from the Seventh Congressional District of Kentucky.

They are here visiting with the chairman of our committee, Mr. Perkins.

I just want to point this out, and I am sure I speak for my entire committee, the subcommittee and the full committee, few members have made as great a contribution to education as Carl Perkins.

We are very proud to have him as our chairman, I particularly am proud to be his successor as chairman of this subcommittee. He was chairman of this subcommittee before he became chairman of the full committee.

You young people can be proud to have a man like Congressman Perkins as a leader in education. He would be here to welcome you personally this morning in this room except he has to be before the Rules Committee where he is now pleading substantial amendments to the Elementary and Secondary Education Act which we just voted out of our committee.

We are happy to have you here and hope when you go home you are going to have a better understanding of the dynamics of running this great republic.

Mr. Scherle. Thank you, Mr. Chairman. As a 4-H dad, I greet you, too.

I would like to say that we certainly are happy for the opportunity to have you testify this morning and I certainly hope we will be in a position to help and do everything possible in the field of vocational education. I feel it is something that has been long overdue and I can see this particularly when I have my own State in mind.

I thank you very much.

Mr. Pucinski. Mr. Dellenback.

Mr. Dellenback. Mr. Chairman, as is obvious, I just arrived on the scene, I am here to listen rather than speak at this stage.

Mr. Pucinski. Mr. Burkett, I consider your statement an extremely important statement for many reasons, one, because you bring before the committee the resolutions adopted by your association.

I daresay that the resolutions go to the very heart of legislation before the committee here, incorporated in 7380 and various other bills.

I am particularly gratified to see you stress or put emphasis on residential school centers and on teacher training and particularly on the need for expanding our work on home economics.

I was telling Dr. Simpson earlier this morning that some of our studies show that the highest percentage of unemployed in this country, in the large cities particularly, are the young women of America, and it seems to me that this is a field that has been totally neglected.

It is completely incompatible with our technology and I am pleased to see that your association is mindful of this problem and is suggesting concrete steps by which to make these young women more—or I should say better—prepared to meet the challenge of their environment.

But, in particular, it seems to me, your testimony points up the fact that even H.R. 7830 is only, at best, a modest contribution toward solving the enormity of the problem.

You talk about $414 million for fiscal 1967 in Federal aid when we are at $225 million.

Then by 1970 you talk about a bill $1.213 billion in needs when 3 years ago you only envisioned $400 million through that period.

In terms of the fantastic growth in enrollments in vocational training you are estimating a substantially higher figure than was presented here yesterday. We had a figure presented here yesterday of 6.2 million by 1970. You are estimating 9 million young people to be involved in the various vocational technical education programs.

It seems to me if there is any validity in your figures, and I have no reason to doubt the validity of your figures, then even H.R. 7380 fails to meet the mark that you are going to be confronted with in a scant 3 years from today.

I am very grateful to you for this testimony and, as I have said before, this legislation could very well become one of the most significant bills to come before this 90th Congress. But in looking at your projections, it is apparent that we really can't wait much longer in starting to cope with this problem.

Mr. Goodell?

Mr. Goodell. I am in the position of agreeing with almost everything my colleagues said.

Mr. Pucinski. This is a great day for the Hill.

Mr. Goodell. It is getting a little monotonous. It is the third straight day.

I thank you for your statement. Initially I would like to ask a single question so the others will have an opportunity. Perhaps we can come back.

Would you comment on how the work-study program is working out and whether it is going to be abandoned as a result of a void that is not going to be filled?

Mr. Burkett. Congressman Goodell, we have some people here around the table who are actually involved with the work-study program. I prefer that they tell you personally their experience with this and what has happened. Let's call on Mr. Seagren, who is a local director of vocational education in Dade County, Fla.

Mr. Goodell. Thank you, I welcome you, Mr. Seagren.

Mr. Pucinski. I wonder if we could withhold for one second and I will call upon you when you have heard all the testimony. Will that be all right?

Mr. Goodell. I will go along with the procedure agreed upon.

Mrs. Mink. Mr. Chairman, I will also reserve my questions until later. I am particularly interested to hear the statements of all witnesses.

Mr. Dellenback. What I want to do is find out where we are rather than just two having testified. I would ask some questions but I think it would be most helpful if we got the rest of the testimony.

Mr. Pucinski. I can see there is great advantage in having the panel develop certain points. If you can, please, would you develop a 2-minute summary of your testimony and then we will go to questions and answers?

Mr. Goodell. Two minutes, by congressional rule, has a broad definition.

Mr. Shoemaker. I am Byrl Shoemaker, director of vocational education in Ohio and I represent the National Association of State Directors of Vocational Education.

I am appearing in strong support of your House Resolution 7380. We believe the overwhelming evidence in terms of progress under the 1963 act shows a need to consider additions to this act.

I can state, as I have in my prepared testimony, facts and figures, the contributions of the 1963 act to the State of Ohio, and this could be translated to apply to other parts of the Nation. My testimony points out that the concept in the 1963 act again stimulated State and local expenditures in excess of the contributions made from Federal funds.

There is no other Federal act for education that stimulates the type of local funding which has been stimulated by the Federal, State, and local relationship in vocational education.

I would point that the State directors of vocational education met in February to take a look at the program and suggested some changes in the act which would, in our view, bring improvements in this field.

One, we strongly support an increase of the funds on the basis of the study we have made. For the first time we can place a figure on the project, a figure on the basis of expanded needs in the State. We support for 1968, $400 million, for 1969, $600 million, and 1970, $1 billion in terms of actively moving toward providing sufficient vocational education opportunities for adults and young people in the country.

If the recommendations of the State directors are followed, perhaps the funding for research should be an amount of up to 10 percent rather than the flat 10 percent we now have for research.

However, looking at some of the issues and concerns we have had in the area of research, we would suggest 50 percent of these funds should be allocated to the States on a nonmatching basis for research projects to the individual States rather than to have all the funds being allocated from a Federal source. There is a concern that research funds be spent in areas that States identify as critical to program development and operation, rather than have all the research effort directed from the national level.

We also suggest that the administration of research funds should be delegated to the Division of Vocational Education within the U.S. Office of Education, especially in the area of leadership development programs. We believe the Division of Vocational Education has a broader prospective and a closer contact with the individual States and can make more effective use through the allocation of these dollars and the supervision of these projects.

We strongly support the work-study program and particularly the section which calls for 90/10 matching. We find a very effective use of these dollars can be made with disadvantaged youth and to lose these dollars at this point will seriously hamper some of the developments where we are beginning to make effective use of these dollars for school disoriented youth.

We suggest, however, the amount allotted for State leadership in the program be increased from 1 to 2 percent or $20,000.

We support the concept of residential schools very strongly. I come from a State where we have proven you can operate these schools very successfully on State and local funds.

We thank goodness for the opportunity of manpower funds to establish residential centers and should this committee make field trips, we invite you to visit a center operated under State and local funds.

I strongly support this from the standpoint of needs and from the standpoint of competency in the local areas to operate such centers. We would suggest however, instead of dropping the equipment dollars after 1969 that you retain the construction and equipping of centers at 90 percent but maintain the operational dollars at the 75-percent level suggested in the bill.

All of these suggestions are coming from State directors. I won't repeat that section in view of the time limit that you gave me.

We suggest, however, and strongly suggest that the approval of these projects for construction and operation of residential schools be the function of State boards of vocational education rather than the Commissioner of Education.

I believe those of us in Ohio are fully aware of the need and places of need and would effectively locate these centers in our State.

I would indicate clearly that the first place would be in our largest metropolitan area in the State, Cleveland, Ohio. We would like to see such centers in other parts of the State.

We strongly support teacher education, the provisions of House Resolution 7380. I have a meeting next week with representatives of teacher education in my State. Already we are wondering how we are going to provide for the teachers we need in expanding not only existing programs but also staff the new facilities we have under construction.

We would suggest that the institutes and fellowships be approved by the State boards rather than the U.S. Commissioner of Education. There have been questions as to the ability of the States to do this type of job but I don't believe there is evidence to support this.

We believe vocational education has proven the ability to produce. We can support this with facts and we ask for the funds equal to the challenge we face.

Thank you and I am sorry I ran over 2 minutes.

Mr. PUCINSKI. That was a very fine statement.

Mr. SEAGREN. Mr. Chairman and members of the General Subcommittee on Education, my name is Philip Seagren and I am speaking for the national council representing local directors across the Nation, and also as a director of vocational education in Dade County.

It has been my privilege to serve in Dade County for 38 years, and for the past 30 years in the field of vocational education.

We have been pleased with the opportunity we have had to participate in vocational training under the Manpower Act. I have been concerned because of the reduction in funds which has caused us to reduce our training in many respects and yet we have a hard-core area of unemployment we are concerned about in Miami.

To cite something quite different, we had another emergency with the Cuban refugees that came to our shores a number of years back.

We had a Federal program set up, funded by Federal funds entirely. We trained tens of thousands of Cuban refugees during a 3-year period, both in the English center and in our vocational programs.

This was done in the regular adult program operating without any adjustment necessary where the current enrollment is some 22,000 local adults going to vocational schools and a total enrollment of 65,000 adults working on a job entry level.

We are carrying quite a load on our own and my concern is, of course, in the youth program in our community and across the Nation. I think there is a breakthrough that needs to be mentioned, as I have indicated in my formal testimony, that gives me much encouragement.

I was invited to attend a conference in Atlanta just last week called by Director Felix Robb of the Southern Association of Colleges and Schools. Hundreds of people were invited to attend this conference representing 11 Southern States.

Business and industry representatives were present, as well as educators. The real challenge and real surprise actually to me was the fact we had college presidents and people such as deans of colleges, junior colleges, expressing their concern about the inadequacy of the secondary education systems of meeting the employment demands for high school graduates.

The directors and members of the board, the deans and presidents, said it is high time something is done to revamp our educational system at the senior high school level so as to induce more high school students to come into vocational training rather than following through on college preparatory training and then being listed as unemployables at the conclusion of high school graduation or as dropouts. I contend if something radical is not done to change this structure in the high school system we are going to have an increasing need of manpower training on an emergency basis to take care of the unemployables.

I have been really encouraged to see the Southern Association of Schools and Colleges taking a practical approach to the development of high school curriculum.

A further step was indicated by recognition that the association must do more to develop an image that is satisfactory and that will induce parents to seek occupational training for their high school sons and daughters.

One further suggestion by the association was that we have to do something about work experience programs to help the counselors in high schools look up to rather than down on occupational skills.

So much for that phase of the program. It has already been indicated how much the work-study program has meant to the youth in the high school programs. We have found during the time we were able to operate the work-study program that we were able to place these students in jobs either in the occupations for which they were seeking training during the day or in related jobs similar to that.

In our entire vocational program in Dade County we have some 55 advisory committees and we went to them for help and advice in establishing this work-study program and placing students.

Upon the graduation of the group, before we had to close down the program, they indicated that these youth were better trained, more valuable employees because of this extra time they could spend on work-study on the job in addition to the high school program itself.

We are very hopeful, as local directors across the Nation, that the work-study program can be reinstated. As we increase the enrollments in the vocational occupational areas, we are going to have to increase the help for those students who need financial aid.

It has already been mentioned this morning about the need for setting up workshops in teacher training to assist our administrators upgrade not only supervisors, but teachers and help raise occupational standards in our secondary education programs.

Along with that is the need for bringing in new people from industry that we will have to have if we are going to keep up with the increased enrollments planned in the next few years in secondary as well as postsecondary schools.

As vice president of the National Council of Local Administrators, I have been speaking of the problems I know best. The national survey has indicated this is a problem across the Nation.

In closing I would like to refer to fiscal problems we are encountering in Florida. In fiscal 1966 we had in our budget an actual expenditure of $8.8 million on local efforts, State effort $15.6 million, and the Federal effort $6.8 million, or a total of $30 million.

It is estimated that Florida for the fiscal year 1967, in the vocational technical area alone, to meet the expanded programs to take care of facilities already being developed in area vocational schools, that our local effort will go from $8.4 million to $13.6, State from $15.6 million to $43 million, the Federal effort from $6.8 million to $7.3 million. That is a rather fantastic increase to a total of $63.9 million.

There is a question as to whether we are going to be able to make it for the full amount, but it shows that we are aware of our needs in Florida and this is true throughout the Nation. It is for this reason that we need a rapid increase in allocation of funds helping us at State and local levels both in vocational and technical education.

Thank you, very much.

Mr. PUCINSKI. Thank you, sir.

Dr. Simpson?

Dr. SIMPSON. Mr. Brandon will speak particularly to teacher needs in education.

Mr. BRANDON. Thank you.

Mr. Chairman and members of the General Subcommittee, I think I can serve in deference to the chairman's wish to save time here, by inviting your attention to two things, page 6 of Mr. Burkett's statement; namely, the preparation of vocational education personnel. I will be confining my remarks to this page.

Page 6 is the substance of vocational education to which you have referred here this morning as needed in critical shortages. Notice these are not only teachers, they are all forms of administrators, supervisory personnel, coordinators, as we speak of them, researchers, teacher's aids, technicians, et cetera.

My other reference is to page 11, particularly the upper portion of the page, quantitative data on estimated teachers needed, investments and so on, possibly down to the middle of page 11.

I think generally I would be very remiss before the committee if I didn't state rather enthusiastically for all of us in vocational education that we have at least in recent times expanded all efforts across the field. Some of us who have been in the field 25 years or longer are thrilled and do not hesitate to say so. We do, however, see additional needs and I imagine this is the point and purpose of our meeting this morning.

A word about teaching and administrative process. I have stated in my paper, that the teacher is the heart of our instructional program. We usually don't disagree on this concept.

Now, the reason this is so important and has a twofold concept is the fact our supervisory and administrative personnel come from the Teacher Corps; therefore, what we say about benefitting the kind and quality of teachers also reflects on administrators and administrative personnel.

Generally I would briefly cite one inadequacy of the current provisions in Public Law 88-210. This is largely the restricted phrase concerned with the use of ancillary funds, meaning that there is a three person minimum to be spent for this effort and this is not reserved for teacher education. Included in the three person minimum ancillary services are guides, curriculums, instructional materials, et cetera. I have the suspicion in many cases the States read this as a three person maximum. It is not a maximum, it is a minimum, and I feel it inhibits the funds that should be devoted to teacher education.

Obviously we need to have, and at least in my own State of Pennsylvania we are having, great increases of temporary enrollments particularly for trade and industrial teachers. This is heartening. The paradox, I believe, we face these days is to see the generous provisions made for vocational education as we interpret these in the new buildings, facilities and equipment, and hear relatively little about the importance of the teaching and learning process.

Now, if we span this gap it is going to take some careful planning. It is going to take some innovation on our part to get away from the notion that we have one groups, one teacher. So, I would encourage the Congress to simulate interest in teachers at the heart of the vocational and technical program.

I think it can be done through stipends, through fellowships, through grants and aids in many forms. It is a recruitment problem and it is a selection problem.

Thank you, Mr. Chairman.

Dr. SIMPSON. Our next witness is Catherine Dennis, representing the State supervisors of home economics. Miss Dennis.

Miss DENNIS. Mr. Chairman and members of the committee, the Chairman asked what results we had to offer for our expenditure of funds.

I might say I am in the process of completing 49 years of vocational home economics beginning in 1918 with the introduction of Smith Hughes funds for teacher education.

I believe I am a pretty good representative of the use of your money. I would like also to say in relation to the request for additional teachers, we secure from the administrators of the schools in North Carolina an annual plan in which they tell us what they feel their needs are.

I think you might be interested in knowing that we have secured at the present date 50 percent of the 168 programs in which there is a request for 778 new teaching positions, beginning with the field of trade and industrial education, office management, and the third being home economics.

I am here on behalf of the vocational home economics teachers, the teacher educators and the supervisors of home economics of the several States. We are in accord with the request for additional funds. We are very much concerned, and have been over a period of years about the limitations placed in the act of 1963 on how these funds shall be used for the training for useful employment which we interpret to mean homemaking.

I hear of the billions of dollars we need and the millions of dollars and I look at the amount of money allocated for this purpose to North Carolina and I find it to be geared into $339,999, ad infinitum, less the 10 percent for the occupational training.

Now we are totally in accord with the need for occupational training for those areas requiring home economics skill and knowledge. It is a new field for us and has required much retraining of teachers as well as training of the new teachers. We cannot overnight meet all of the problems involved, but we are taking initial steps to do so.

We are concerned that we cannot use any of the appropriations in the 1963 act nor is there any reference in H.R. 7308 that these limitations are being removed.

We would like to request that consideration be given to this and that the State boards of education be permitted to make allocations based on their judgment and certainly the judgment of the State boards of education and local boards of education will indicate they will spend the money as wisely as they can.

Secondly, we feel the vocational program of homemaking for useful employment is supportive in the occupational field because just to know a particular skill does not necessarily mean employment. There are many other factors making a person employable and letting him remain in the labor market.

We feel that understanding the family values we wish to perpetuate understanding the use of money, consumer problems, a good diet of food, certain characteristics that are instrinsic in work habits is necessary and all of this must stem from the home.

We also notice, those of us on the firing front who work with people who come from less fortunate backgrounds, that that is the primary need which they have. They have had little contact with the good things of life, they will not get it as a low-income family. They must be exposed to the use of present-day equipment, for example.

I talked with a supervisor recently who said she employed a young girl to help with her housecleaning. She told her to use the vacuum cleaner and the girl said, "What is a vacuum cleaner?"

She was amazed that this child had no knowledge of the use of a vacuum cleaner. I said, "Do you suppose she has one in her home?" She said, "No," she knew she didn't. I said, "Do you suppose there is one in any of the schools?"

She said, "No, we don't have the money to buy this equipment." I said, "How would you expect a child to go in and function in this capacity if she had never seen such a piece of equipment?"

Nevertheless, it is an indication of the surroundings in which these children grow up.

We need money on a matching basis, we need teachers to work more closely with families, more money for teacher education to train teachers who know how to work with such families.

I very much feel we need a change in the statute so the money can be allocated as the State sees the need for it for both use and gain in State unemployment.

Mr. PUCINSKI. Thank you.

Dr. SIMPSON. I got so excited about Miss Dennis' testimony, home economics is my field.

Next is Mr. Hilton, State director for vocational and technical education, State Department of Education, Frankfort, Ky.

Mr. HILTON. Thank you.

Mr. Chairman, Members of the subcommittee, I am Everett P. Hilton, and I come from the State of Kentucky. I was born and reared in the seventh district so I am ably represented here in Congress by Carl D. Perkins.

I am going to relate to the residential vocational schools. I see the need for this both from my previous experience and the problems we are facing in our State of Kentucky. This type of school deals with one of the purposes of the 1963 Vocational Education Act, which says "Vocational education for persons who have academic, social, economic, or other handicaps that prevent them from succeeding in the regular vocational education program."

This is a neglected group and there are some things we know about them, but there are many things we do not know. We feel that if we are to deal with them, we need first to identify them, to accurately assess their handicaps, motivate their interests in seeking a solution to their problems. We must develop education programs that will meet their needs and then help them find their rightful place in society.

I am convinced that the residential vocational school is oriented to these special problems and we should implement construction of these schools to serve these people with special needs.

We believe vocational education can be effectively combined with compensatory education to raise these people to the full participation in our society.

We further believe this can be done, that we can make them employable without robbing them of their independence and dignity as human beings. It is our desire to back up these beliefs with programs for this purpose.

I would like to call your attention to page 5 of my statement, the purpose of the school. We recognize that these schools will differ from State to State and sometimes within the State. The kind of school we would have in Appalachia regions would not be the kind of school we would have in Chicago or Los Angeles, or Cleveland. However, all these schools would be enrolling people with special needs, those that have handicaps and who would not be able to take advantage of the regular vocational program.

I believe that these schools can carry out three basic functions. One, to demonstrate the feasibility and desirability of operating residential vocational schools for youth, at least 15 years of age and less than 21 years of age at the time of enrollment, who have these special needs. Two, to provide students with a wholesome environment conducive to the development of social, educational and vocational competencies.

This function would be organized into two phases, phase 1 would be orientation and exploration.

In exploration during phase 1, there would be four significant areas, one would be exploration of crafts, practical arts, and various vocational areas; two, related academic education and such aspects as the communication skills, reading, writing, and arithmetic; three, health and physical fitness; four, guidance and services, both personal and vocational.

Phase 2 would be primarily the vocational preparation. Students would move into this phase as soon as they were able to move into it.

The third function would be to establish this facility in a situation favorable to research, training, experimental, developmental or pilot programs which would help us to find out what the needs of these people are and what we could do to help them meet these needs.

We know a lot about some of these pupils. We know that studies have shown that many of them have lost motivation, they are school dropouts. They are failures both intellectually, socially, and economically and they have developed negative attitudes, emotional disturbances and do not have salable skills for the labor market. In many cases they fear organized authority both in school and out. They lack confidence to learn.

As a group they vary widely, some with practically no educational attainment, some maybe to high school. They are deficient in the basic academic education on which to build their vocational training. Many have health and physical fitness problems. We found this in many of our schools. They lack adequate guidance and counseling both at school and in the home, they are victims of poverty, largely through no fault of their own, but through the evolution of technology and automation.

They come from homes that have had little educational background and too often the parents have had the same experiences and do not have the know-how to encourage their children to overcome their deficiencies. They have no vocational objectives. In essence, they are the lost generation and we need to bring them into residential centers to take them out of their old environment and move them back into a regular program as they are able.

In most of these cases the residential schools would be attached to our area schools so as a pupil becomes adjusted, he can move into the regular organized program of vocational education.

I concur with my fellow educator, Byrl Shoemaker, on the financing of these programs. The construction should be on a 90–10 basis and the funding for operation of the program on a 75–75 basis.

Thank you.

Mr. PUCINSKI. Thank you. And without exception, I would like to thank you for arranging this excellent panel of witnesses this morning, Dr. Simpson. I think they have all addressed themselves to the most salient features of the problem. The committee has gotten a much broader understanding of where we can go to solve these problems.

I believe my colleagues will agree the only phase you did not cover is what can we trim out.

We are very pleased to have with us a ranking minority member of our full committee who is an ex officio member of this committee. We are pleased that he is here. I am sure his presence here indicates his thorough interest in the subject.

Mr. Ayres?

Mr. AYRES. Thank you, Mr. Chairman.

I am sorry I wasn't here throughout the complete testimony of the panel, but I think, Mr. Chairman, you have done a wise thing in setting up these panels with diversified geographical representation and, of course, I am particularly happy to hear from my Ohio friends.

As many of you know, I have been a strong advocate of vocational education over the years, and we all realize the purpose of having a very effective vocational program is to make certain that our people learn to earn. I have one question that I would like to pose at this time. We have had some experience over the years with students graduating from a vocational school with skills relating to our business industry—where men have learned sheet metal trades and plumbing trades. They become carpenters to a degree and then we find difficulty in getting them out of the labor management into an apprenticeship program. Are we still confronted with that problem?

Mr. SEAGREN. Mr. Chairman, in Miami Dade County, as I mentioned before you came in, Mr. Ayers, we have some 55 advisory craft committees we work with. In addition, we have committees for apprenticeship programs. To give a better understanding of the problems between the high school students going into apprentice trades, we have taken the chairmen of each of the apprentice committees and formed a council of them to meet once a month.

We have a good working relationship and have had excellent placement as far as going into the building trades is concerned. That is primarily what the objective is in our county.

I would like to allude to something Congressman Ford said this morning, that is the type and quality of the vocational education. I realize, as local director, back as early as World War II when we wanted to expand the vocational division, we were going to have to keep with a quality type of program if we were going to build up to a place where we would be respected by business and industry.

Over the years we established certain levels of math, levels of science, levels for going into the trades. Through the years it has developed to the point where placement in many of our categories runs better than 90 percent. The lowest would be around 85 percent.

So there is good placement in industry, there is good rapport in these committees and we regularly revise the curriculum and review the standards for entrance.

I hasten to add if we have a person taking these entrance tests and they fail in one or two categories, we don't reject them, but we take them into the high school programs until they can develop and move over. The results have been very encouraging and effective in my opinion.

Mr. SHOEMAKER. In connection with this area there has been over the years a problem from graduation into apprenticeship. We well recognize that.

As the period of time in which there is greater national concern on the entrance to apprenticeship, there has been more interest on a testing procedure into those areas. We believe as this becomes the basis for entrance then the entrance of graduates into vocational schools will improve in this area.

We have ample evidence that in testing—there has to be a State test—our students achieve almost unanimously on completion of those tests.

The only area where perhaps this conflict has existed has been in certain building crafts and we see this dropping as they move to a testing basis for entrance into these programs rather than an opinion basis for entrance into those crafts.

Mr. PUCINSKI. Thank you, I am sure our colleagues from Ohio find this to be of great interest since some of our finest vocational schools are in Ohio, such as the Mahoning Valley Vocational School and Vinton County Vocational School.

I think it is significant, as Mr. Shoemaker pointed out, since the enactment of this legislation in 1963 that the number of disadvantaged youths who have been participating in these programs has gone from 30 in 1962–63 to 3,229 in 1966–67. This is a spectacular growth record. I am sure that we all find great comfort in this program, not only the gentleman from Ohio.

Mrs. Mink?

Mrs. MINK. Thank you, Mr. Chairman.

I have several questions for some of the witnesses who, may I say, have presented excellent statements.

My first question is to Mr. Brandon with respect to the comments he made on the necessity for teacher training and teacher institutes and the problem which he cited of the critical shortage of teachers in the field of vocational education.

Could you tell the committee in your opinion which would be more critical: The need for new teachers simply to meet the demand for increased classrooms, or the need for giving those who are currently in the program advanced teacher education in this sort of program.

Which of these two areas in your opinion is the more critical at this time?

Mr. **Brandon**. You put your finger on a sensitive point but I am not too sure if I can clarify. Actually we have needs for teachers at every level and inasmuch as among the various categories of vocational education preparatory paths are quite different, it is a little difficult to describe to you.

For instance, in the program of home economics education and agricultural education, these teachers are products of a 4-year baccalaureate. This is quite contrary to trades and certain technical programs where teachers come to teach by merit of occupational experience and conceivably could be teaching in a week or so on the basis of a temporary certificate.

This kind of ease of induction also brings on some problems; namely, that these individuals are more mature.

In the State of Pennsylvania the average age is estimated at about 35. They come with considerable earning power and the problem is introduced, how does a teaching salary compare with a salary in industry or business?

This program of professional teacher preparation is extremely stretched out. We have cases in Pennsylvania where it is not at all uncommon for them to be taking teacher education courses for as long as 6, 8, or 10 years to the point where even at the 60 college credit level they then become permanently, or on a continuing basis, certified.

So as you see this is a confusing picture.

Nonetheless, what I said a moment ago was the fact that invariably our administrators, our supervisors come from these folks. We recruit administrators largely from the teacher ranks, whether this is good or bad, we don't seem to have any control or anything to say about it.

This is the way they come. If we have a short teacher supply and a heavy teacher demand, this will be reflected in the supervisory coordinator-directorship levels to say nothing about my own category of employment; namely, on the college and university levels.

Have I answered your question?

Mrs. **Mink**. My specific question is related to the post-secondary vocational education institutions and the problems of recruiting and attracting teachers to that kind of an educational environment. I think it is particularly acute from my limited observation in this field.

I noted in your statement you indicated that the primary source for recruitment currently seems to be in the private business and professional sector. If this is the case, and I assume this will continue to be the case, even after teacher institutes and training programs are incorporated under this act, how will this serve to improve the situation in terms of getting these individuals interested in becoming professional educators in the vocational field, or is this section of the bill going to be primarily addressed to the question of encouraging and retaining graduates of the vocational institutions who remain with the institution with a traineeship program to immediately get them involved in education?

These two things seem to be separate, as I view it, and I wondered whether this bill was primarily designed for this second feature, or do you see implications in it with reference to attracting those who are currently in business, and who, as you testified, have a high earning capability?

Mr. HILTON. May I, as Director, respond to your question? This is one of the most acute problems we are facing in our State. We opened up four new schools last year. We had to staff these four schools with new personnel and we ran into some major problems.

We are opening up 14 in September of this year. Our personnel in the technical field has doubled in the last 3 years since the passage of the 1963 Vocational Education Act. We will have an increase next year over this year and we must go to industry to get these people.

They have the technical know-how but they are not teachers. We must make them teachers. We are employing them and putting them for 3 months in an extensive training program.

This is an emergency situation.

Mrs. MINK. That is my question, do you envision these training programs for the private sector as being part and parcel of your vocational institution or is it a training program which will have to take place in a teachers' college on a college campus?

Mr. HILTON. I visualize it both ways. We hope within a period of years we can have a teacher education program that will provide us with teachers as our program expands, but until such time as this takes place, which is years ahead, we are going to have to go back to the seminar, to private industry, taking these people out of private industry, putting them in training programs and upgrading them in their training field.

Mr. SHOEMAKER. We have a basic premise, that a man can't teach that which he doesn't know. So we start in all vocational fields with technical competency.

Speaking directly to the area you are concerned with, post-high-school technical, we find we have to call people from industry to train a paraprofessional. Often the professionals don't know how to communicate what they know without training in teacher education.

So we see as an important feature of this bill, the concept on which you can bring them in on subsistence at a level in which you can get those people.

You can't get them for that. They are at a level of achievement much higher. A second factor we have proven is a followup in terms of in-service in which the teacher education student goes to work with those people once they begin to teach.

Mrs. MINK. I notice in your statement, Mr. Brandon, you were making a point, which is the basis for my question, where you said, "fellowships, traineeships, and exchange provisions should not be watered down by expected service or work as part of the load."

Does this mean if a person is selected for a training program within this act, even though they would be part of your vocational educational system, they would not be involved in its operation while in a teacher training program and would not be performing services as a teacher?

Mr. BRANDON. Most desirable, Mrs. Mink, these services, if performed, should be highly professional and on an orderly training plan. I don't like to speak of it narrowly, but it should be a well-thought-out professional plan, similar to the way we guide a cooperative student.

I tried to stress in my paper the fact we need many kinds of internship but essentially a stipend should enable a good student to devote full time to his studies and, if an internship is worked into it, it ought to be directly related to professional study and not employed at some tangential activities, which are questionable.

We don't have at this time, and I don't believe our professional personnel appreciate this. This is one of the problems with hiring graduate assistants at this time. You have probably noticed in the last few days Ford Foundation's efforts with a doctor of philosophy degree to bear down on this aspect alone.

Mrs. MINK. If this part of the bill is going to be used to attract professionals and technicians from the private sector into vocational education and offer them an opportunity first to upgrade their abilities as teachers, what kind of stipend do you envision will be needed to get them into the program?

Mr. BRANDON. I made a canvass the other day of so-called training fellowships. The rather immature survey I did make was among people administering these stipends, not the professors working with students who have students, but the administrators, and largely they favor the National Science Foundation plan for the reason that it has less paperwork, less recording, more flexibility.

Largely its provisions are more continuing so that I think stipends ought to look at a continuing basis of support. I believe the range of money involved in this money is roughly from $2,400 to $2,800 a year with subsistence and dependent allowance.

I don't know how this compares. I rather imagine it compares rather poorly with the ongoing wage of that person comparable to business and industry so an internship possibly could be worked out where a State, in cooperation with a local community, could jointly pay a salary and this could all come together in a graduate program.

I think there are many, many ways of doing this.

Mrs. MINK. The chairman has indicated my 5 minutes have expired.

Mr. PUCINSKI. We will come back to you.

Mr. Goodell?

Mr. GOODELL. Thank you, Mr. Chairman.

I think, Mr. Burkett, you indicated you would need $400 million for fiscal 1968?

Mr. BURKETT. Our study shows for fiscal 1968 that the States could use——

Mr. GOODELL. $560 million?

Mr. BURKETT. That is right; $560,835,000, and by 1970 they could use over $1 billion.

Mr. GOODELL. I think you made reference to the fact H.R. 7380 keeps the money at $225 million for fiscal 1968 with no increase in funds, that is, the overall program. It goes to $400 million in 1969?

Mr. PUCINSKI. That is correct.

Mr. GOODELL. Also it keeps it within the President's budget figures.

Mr. PUCINSKI. If my colleague will yield, we made this increase for 1969 because we are hoping by 1969 the Vietnam conflict will be behind us and we will be able to approach some of these other problems.

Mr. GOODELL. I understand that. I think there is a question of priorities here. We are funding many other lower priority programs.

These programs pay back many times the investments of money to them. How much do you feel you could use in fiscal 1968 for residential schools?

Mr. Burkett. I would like to refer you to page 10 of my testimony, the estimates of the number of residential schools that the States feel that they need or could build in fiscal 1968 would be 1969 schools. We give you an average cost for constructing and equipping these schools of $3,969,051, also on page 10.

So it would be a matter of a little multiplication to determine the amount of money we would need to construct 1968 schools.

This, of course, means that we would have to move real fast and there is a question of whether we could if the money was not let out immediately.

Mr. Goodell. You estimate the cost per student—residential cost—at $1,018?

Mr. Burkett. That is the residential cost. The maintenance cost is $925, a total cost of $1,943.

Undoubtedly in some States it would be more than that.

I think Dr. Shoemaker has had experience particularly in the school at Mahoning Valley as to the actual cost at that school.

Mr. Shoemaker. Our figures are between $2,900 and $3,000 in terms of housing, education, and the operation of the vocational center per student.

Mr. Goodell. Does this include amortizing the cost of facilities?

Mr. Shoemaker. The facilities are not amortized into this figure.

Mr. Goodell. Do you have one that amortizes the cost of facilities?

Mr. Shoemaker. No, sir; we don't have that figure, since we have not had the opportunity to build such a facility and determine the amortization.

The $3,000 does not include amortization.

Mr. Goodell. Does it include all other costs?

Mr. Shoemaker. Yes, in terms of the operation of the center for residential and educational.

Mr. Goodell. Mr. Seagren, you made reference in the first page of your statement, and I quote, "We at the local level are concerned about the overlapping and duplication of effort."

I don't believe from there on you gave any specifics. I wondered what you are talking about?

Mr. Seagren. I meant to comment in my opening remarks about that. I overlooked it.

Several of the people who have met with the policy and planning committee in Washington have been dealing with manpower training on an emergency basis. They felt that some other agencies were getting involved with training areas and felt there was some overlapping and duplication of efforts.

Some of the funding of these agencies exceeds by far what we are able to get in manpower and we have had to close down some of those programs in our counties because of limited funds.

Further, that has affected us because of the reduction of manpower funds and we have had to go on our own because of the critical hard core in hardship areas, and establish a health center adjoining Lindsey Hopkins.

A great many of those training courses will be to get the hard core into employment. We managed to get a fund of $6,800,000 through States and local efforts. I felt we could have a much broader scope in our emergency training had not Federal funds from manpower been reduced.

Mr. GOODELL. You would like more money from the Manpower Development and Training Act and more money from the Vocational Education Act. What other programs are you referring to that are overlapping?

Mr. SEAGREN. I think in some areas the Office of Economic Opportunity is getting involved in programs in areas that we are funding with our regular manpower programs.

With our background and knowledge we have had in vocational training through the years, we could expand that very rapidly if funds were available.

My reason for mentioning the Cuban refugee program is that during that emergency, funds were made available and almost 100,000 Cuban refugees received training through our facilities and branch centers.

We were able to do that job not only on the basis of getting them into basic education and able to communicate, but transferred them over to work in a sizable program. If the funds were there, we could get into this other area in our county.

Mr. GOODELL. I will paraphrase what you said, perhaps somewhat overtactfully. In effect, you have lots of money coming in in the poverty program in one training aspect or another and a great shortage of money in the programs you operate?

Mr. SEAGREN. Right.

Mr. GOODELL. I like to state these things in simple terms.

You stated—

> It is true we have a work training program offered under the Economic Opportunity Act, but this does not accomplish the same goals as was possible under the work-study program of the Vocational Act.

This comes after your testimony with reference to the termination of the work-study program. Could you expand a little on this thought?

Mr. SEAGREN. I believe before you came in I mentioned in establishing our work-study program in our vocational high schools through our advisory committees we were able to take many of these high school students and place them on jobs related to the vocational training they were receiving.

This was done after school hours or at least related closely to their occupational training in the day program. Before that program was terminated we had graduates from our various high schools that were placed and members of our advisory committee indicated they felt we had a better employee as compared to what they probably would have been without that experience.

Referring to the other type of training program, it is unrelated and they are working in training programs but it is not tied in with the actual relationship in the high school.

Mr. SHOEMAKER. We are finding very effective use of these dollars in our work-study in cooperation with disadvantaged youth programs. It is nice to talk about cooperation and that there are some dollars in OEO that might be used for the same program, but obtaining and getting the dollars at the time you need them is a different problem.

The work-study money has been an effective tool for doing a job with a group of students and by having those dollars in cooperation with the agencies concerned with vocational training, it has enabled us to put together this type of tool dependent on the types of problems we face.

I think to say the money is there in another agency, all you need to do is find it, that is a false concept if we hope to retain an integrity and ingratedness of an overall program of effectiveness.

I have a report on a work-study program in our State last year. I will put it in the record if you would like.

Mr. GOODELL. Yes, I would like that. I will ask unanimous consent.

Mr. PUCINSKI. That will go in the record at this point.

(The report referred to follows:)

REPORT ON OHIO'S VOCATIONAL WORK-STUDY PROGRAM FOR FISCAL YEAR 1966, DIVISION OF VOCATIONAL EDUCATION

Last year 1,917 students enrolled in vocational education programs in Ohio had an opportunity to earn and learn through participation in the vocational education work-study program. Seventy-three percent of the students enrolled were from city school districts. The earnings these students gained through their work-study program made it possible for them to continue enrollment in their vocational education programs. There were 51 Ohio school districts participating in the vocational work-study program.

Reports from large city schools who had extensive programs in vocational education work-study indicated that this program significantly helped to reduce the number of dropouts. The appeal of the out-of-school as well as the in-school work sites to enrollees was a major factor in helping youngsters to be motivated toward staying enrolled in vocational education programs and enrolled in school.

In addition to working in the local public education agencies students work in other public agencies and institutions. Some of the job titles in which enrollees were working are as follows:

Canteen Aids—Hospital
Dietetic Service—Hospital
Engineering Aids—Hospital
Groundskeeping
Housekeeping Aids—Hospital
Laboratory Aids
Library Aids
Nurses Aids
Office Aids
Recreational Aids
Registrar—Hospital
Shop Aids
Therapy Aids
Warehouse

An outstanding success story with regard to the work-study program relates to the 200 students who were enrolled and worked at the Veteran's Hospital in the city of Cleveland during the summer of 1966. These youngsters did an excellent job of work in their assignments. Many of them were from the depressed areas of the city of Cleveland, however they did not miss any work days and were quite anxious to continue their employment as long as possible. Many of the on-the-scene vocational education work-study coordinators reported that these youngsters always arrived earlier than the regular employees. They also reported that these youngsters really became changed persons in terms of their attitude toward work and their interest and pride in being self-supporting and self-respecting young people.

The hospital officials were so favorably impressed with the work-study program and the employees involved in it that they conducted a special commendation ceremony at the hospital honoring these 200 youngsters involved in the program. This commendation which was publicly presented to the youngsters before all of the employees stated in part that, "Throughout the time you have been with us as a part-time student vocational education work-study employee, you have maintained exceptionally high standards of performance. You have displayed a willingness to learn and a natural desire to achieve excellence that rates special commendation. Work performed in your area of assignment has continuously been rated by your supervisor as highly satisfactory or outstanding—to recognize your efforts and assure you that your work has not passed unnoticed, I am commending you in writing by this letter."

It was generally felt by agency officials employing vocational work-study students that these youngsters were highly motivated and doing an excellent job not only earning and carrying their own weight as far as a job is concerned but learning new skills as well. In several instances these participating agencies have volunteered to provide the necessary matching percentage in order to participate in the program again this year.

Parents of work-study students were interviewed concerning their reactions on the program. Typical of the many parent comments are as follows: "I can not find words to express myself. The vocational education work-study program is doing a wonderful job for youth. I and my neighbors are very proud of this program and wish it will go further." Other parents indicated that these jobs enabled their youngsters to buy their own clothes and shoes thus making it possible for them to continue in school another term.

Students reactions of this program were elicited. Typical of these reactions is a letter which is quoted in part as follows: "I think the work-study program is a very worthwhile and informative program. It has helped me and many other students to gain a great deal of priceless knowledge which can never be obtained in a classroom. Your teacher can tell you about a situation, what you're expected to do when it arises but you don't really grasp the whole idea until you are faced with it. While on this job I have many times run up against a problem which I did not know how to handle. However, since this is a training program I have someone to turn to and ask for help whenever I need it. These things are happening to me. I don't have to read about what someone else does or be told what is hard or easy, I find out for myself—I feel now that I would like to broaden my vocational field and learn more than just things of the business world. To know whether or not you will be content at the type of work you are involved in you have to get some experience in handling the things you will do when you are on your own—I am very happy I have had the chance to work here and I feel privileged that I have had some fine teachers and have learned so much more than the students who learn only from books."

One of the things apparently that has made the vocational education work-study so outstandingly successful in terms of helping students earn and learn on the job relates to the fact that these youngsters are adequately supervised and directed as a part of the public school vocational education program. Employers often indicated that the vocational education work-study program was superior to other youth work programs primarily because of its close relationship and supervision by public school educators who were interested in and able to assist the employers with problems concerning the student.

Mr. Pucinski. Mr. Dellenback?

Mr. Dellenback. Ladies and gentlemen, we all suffer from a shortage of time and, recognizing this is a factor and running into the difficulty that we all must face, of oversimplifying, I would like to break off and go down the line to get some oversimplified analyses of how you would answer on almost a yes or no basis.

If we face in this field the matter of priorities, as we must, and the choice ends up between construction of facilities on the one hand and scholarships, or stipends, or assistance of this nature, on the other hand, where would you place the priority as between these two fields? Dr. Simpson, would you answer that?

Dr. Simpson. Scholarships and stipends, if I have to make a choice.

Mr. Dellenback. Recognizing we are forcing a choice.

Mr. Burkett. I would go the same way. Without teachers we can't have programs.

Mr. Dellenback. Mr. Shoemaker?

Mr. Shoemaker. I would go in the direction of bricks and mortar, of the long-term investment so we could achieve.

Mr. Dellenback. I don't understand you.

Mr. Shoemaker. Construction and equipment.

Mr. Dellenback. Mr. Seagren?

Mr. Seagren. I would go for construction.

Mr. Dellenback. Mr. Brandon?

Mr. Brandon. Scholarships and stipends.

Mr. Dellenback. Miss Dennis?

Miss Dennis. If you will broaden your basis to include public schools, I will go with the mortar and construction.

Mr. Dellenback. I am talking of this one field, faced with the choice in this field which way will you go?

Miss Dennis. You are putting me on the spot, I suppose I would have to still say mortar and construction.

Mr. Dellenback. Mr. Hilton?

Mr. Hilton. Mortar and construction. If we get the facilities, we will somehow man them.

Mr. Dellenback. I recognize this is a forced choice. You recognize sometimes this the choice we, as elected representatives, are making. We must find something akin to this.

Now, I will give you another oversimplified question. Again I would appreciate a tabulation of this nature.

If we were facing a choice on the one hand of specific Federal allocation of these funds versus, on the other hand, block grants to the States, where the States will do the allocating instead of the Federal Government, which would you choose between these, would you choose Federal allocation or would you choose State allocation?

Dr. Simpson?

Dr. Simpson. The latter, the State allocation.

Mr. Dellenback. Mr. Burkett?

Mr. Burkett. State allocation.

Mr. Dellenback. Mr. Shoemaker?

Mr. Shoemaker. State allocation.

Mr. Dellenback. Mr. Seagren?

Mr. Seagren. Very definitely, State.

Mr. Dellenback. Mr. Brandon?

Mr. Brandon. I will give a weasel answer, I think this rests with the ability of each State to administer it.

Mr. Dellenback. You feel from the standpoint of policymakers, the lawmakers, we should make no decision in this regard?

Mr. Brandon. I am afraid you will have to make a decision.

Mr. Dellenback. Which way should we go if we are forced to make it?

The hospital officials were so favorably impressed with the work-study program and the employees involved in it that they conducted a special commendation ceremony at the hospital honoring these 200 youngsters involved in the program. This commendation which was publicly presented to the youngsters before all of the employees stated in part that, "Throughout the time you have been with us as a part-time student vocational education work-study employee, you have maintained exceptionally high standards of performance. You have displayed a willingness to learn and a natural desire to achieve excellence that rates special commendation. Work performed in your area of assignment has continuously been rated by your supervisor as highly satisfactory or outstanding—to recognize your efforts and assure you that your work has not passed unnoticed, I am commending you in writing by this letter."

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Mr. DELLENBACK. Ladies and gentlemen, we all suffer from a shortage of time and, recognizing this is a factor and running into the difficulty that we all must face, of oversimplifying, I would like to break off and go down the line to get some oversimplified analyses of how you would answer on almost a yes or no basis.

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Mr. Brandon. If you are asking me personally the route of funds to support scholarships, stipends, and fellowships, I think it is the universities.

Mr. Dellenback. From the Federal Government? Skipping the State?

Mr. Brandon. Yes, sir.

Mr. Dellenback. Miss Dennis.

Miss Dennis. State.

Mr. Dellenback. Mr. Hilton?

Mr. Hilton. State.

Mr. Dellenback. One more oversimplified question. Recognizing there are not enough funds in this field, this we all accept as extremely important, I join with my colleagues that have spoken before on this. I think this is a particularly important field with which we are dealing and, if it becomes necessary to do one of these three things in order to get the funds that need to go into this field, where would you put your choice, one, continued deficit spending or increased deficit spending by the Federal Government; two, taking the funds from some other Federal program; or three, raising taxes to get additional funds?

Where would you put your choice between these three, Dr. Simpson?

Again, this is the choice we would have to make, we ask your help. We have listened with much sympathy and deep concern on the importance of spending an increased amount in this field. Facing it from our side, we must get the funds to permit this.

Will you give us your advice as to which of these three roads we should follow: deficit spending; moving the funds from other Federal programs, this is a broad general field; or three, raising taxes?

Dr. Simpson. I think a combination of the latter two.

Mr. Dellenback. A combination of moving funds from other programs and raising taxes?

Dr. Simpson. Yes, I think so.

Mr. Dellenback. Mr. Burkett?

Mr. Burkett. I would agree with Dr. Simpson on that.

Mr. Dellenback. A combination of those two?

Mr. Burkett. Yes.

Mr. Dellenback. Mr. Shoemaker?

Mr. Shoemaker. This has crossed my mind a number of times, it is not a quick answer, my feeling is No. 2. There are expenditures being made in the field of education, in the field of vocational education which should be equaled out one way or another.

Mr. Dellenback. You would concentrate on moving funds from other programs?

Mr. Shoemaker. Yes, sir.

Mr. Dellenback. Mr. Seagren?

Mr. Seagren. I am glad I am in the fourth position, I definitely would go to the second.

Mr. Dellenback. Dr. Brandon.

Mr. Brandon. I will go to the second but contribute my share to the third gladly.

Mr. Dellenback. Gladly, or something less?

Mr. Brandon. For this purpose, yes.

Mr. **Dellenback.** Miss Dennis?

Miss **Dennis.** After 49 years in this career, it gives me an answer, too, I lived through the CCC, WPA and I think No. 2 from different levels, different groups and administered by different groups.

Mr. **Dellenback.** Your feeling is No. 2?

Miss **Dennis.** Yes.

Mr. **Dellenback.** Mr. Hilton?

Mr. **Hilton.** No. 2, but I would go with No. 3 as a second choice.

Mr. **Dellenback.** Thank you.

Mr. **Pucinski.** Mr. Steiger?

Mr. **Steiger.** Thank you, Mr. Chairman.

I have had a very brief opportunity to review the statements that the panel have presented and find them very interesting. Let me, not necessarily following my colleague from Oregon in simple questions, try to get something from each of you, if possible.

If we review what we have before us, either in the proposed exemplary and innovative programs and projects of vocational education as proposed in the Elementary and Secondary Education Act or in our chairman's H.R. 7380, is it a correct assumption that we are placing an increasing emphasis on vocational education in the junior and senior high school years?

Is this the direction this legislation tends to go in or would you disagree with that assumption?

Mr. **Burkett.** I would like to speak to that point briefly. I think the testimony you heard yesterday was really broadening the scope of vocational education to the guidance function and it is not what we considered to be our responsibility in vocational education at the present time.

What we have conceived in our testimony here is improving and expanding the on-going program we now have with innovations and new ideas and research that have come into the field.

The concept that was presented in the testimony yesterday was primarily concerned about broadening the responsibility of vocational education to get into the guidance function.

Mr. **Steiger.** Would any of the others of you disagree with that analysis?

Mr. **Shoemaker.** I would concur with his analysis, the movement is largely in the area of guidance and motivation of youth. We are being faced in our larger cities with the concept of moving to a younger age, the youth who become disenchanted with school, being able to move with them with a type of program that will serve their needs in terms of motivation, terms of job training and rehabilitation.

One of the things we learned from our residential center, most of these dropouts, over 50 percent had rehabilitation problems. We have experimented with students 14 years or older who fall in a disoriented group who say we want to leave school, with the concept of trying to put a job and work-study program, and other programs into a pattern of service to help reorient them to a greater depth in vocational training.

The initial program you referred to in terms of the bill is largely not vocational training in terms of job training but motivation guidance orienting.

Mr. STEIGER. I don't know if any of the others wish to comment, if you do, please do so.

If that is the case and we are talking here about the expansion of guidance, is this increased emphasis on lower levels of elementary and secondary education a sign that we will deemphasize post-high-school and adult education training?

Mr. SHOEMAKER. There would be absolutely no intention of that on the part of most of our States. We tend to talk high school as we get before groups but if you look at the figures and facts the actual larger number of people served are in the adult area in all of our States.

There would be no attempt to deemphasize the post-high-school program for either preparatory or of an adult nature.

Mr. SEAGREN. I would like to comment, taking again our community in Miami, Dade County. I mentioned earlier in our adult division, which is the main center at Lindsey Hopkins plus other centers at night, our adult enrollment runs 122,000 and we have exceeded 62,000 that have finished more than one course in our centers in the last fiscal year.

We have no problem there. We can cope with the demand but in our high school program we have 22 high schools in our county system and only six or seven that are comprehensive high schools so we are way short.

We need to go further than that. As I indicated earlier this morning, the Southern Association of Colleges and Schools realizes something must be done to revamp the high school setup to try to set up an image where the parent will try to encourage their children to go into vocational training while in high school.

Mr. HILTON. It is not an either/or situation, it is a question of developing programs for the secondary and postsecondary groups. In our State it is about evenly divided. If anything, we have more adults out of postsecondary enrolled in adult vocational schools than out of the secondary. It is continuing to increase in this respect.

Mr. BURKETT. I think you will find, in looking at the figures, the greatest growth from the 1963 act has been in the postsecondary programs, both in preparatory and also the adult programs.

Much of the additional amount of money has gone in that direction. We, I think, feel this is one of the areas in which we should further expand. What we are talking about is moving down to help guide these people and give them a better occupational choice.

Mr. STEIGER. Let me wrap up a question and all you may comment on all, part, or some of the parts of it.

What I really want to try and get from you, if I can, is, A. Will this legislation as it is proposed enable us to more adequately meet our manpower needs and, if so, how does it do that? B. Is there something in your own judgment which we can do to strengthen the role of the employer and how do we adequately meet the needs of the employer in establishing these training programs and these guidance programs?

I will parenthetically interject, you know much of the criticism of vocational education has been that we are not adequately training people for the needs that really exist.

C. Is the emphasis on guidance counseling realistic in terms of the sophistication of occupations and requirements being placed on workers today?

For example, should the emphasis be placed on the world of work or should we place more emphasis on the developments of specific skills?

I ask that as one question to which I would ask each of you to make any comments you wish.

Mr. PUCINSKI. Perhaps we could have a spokesman for the whole group.

Mr. SHOEMAKER. I have difficulty recalling all parts of that.

About 3 weeks ago I met with 24 industrial development people in Ohio, the people who go out of our State trying to attract greater industry. As I met with them they said, "Don't bother trying to sell us vocational education, we just want to know how to get it."

The first, second, or third question business asks us is where will they get vocational and technical training education. What facilities are there for it.

The answer is that business and industry are saying overtly out of the State and in our State and I have met with thousands in Ohio, they are saying we need more vocational technical education. This is interesting in that we constantly hear from certain Federal sources that we are training obsolete occupations.

I get very tired of this well-worn cliche. I have a list of trades and occupations for which we prepared people last year. I would like anyone to identify one of those occupations which is obsolete.

Mr. PUCINSKI. Would you mind putting that in the record?

Mr. SHOEMAKER. No, sir; I would be pleased to.

(The information follows:)

PLACEMENT RECORD OF VOCATIONAL GRADUATES BY TRADE, OHIO, 1964-65

Occupation or trade	Code	Total number of vocational graduates	Graduates not available for employment		Graduates available for jobs	Number passing licensing examination (cosmetology, practical nursing)	Total number placed on jobs using their vocational training	Total number working as co-ops in senior year	Total earnings of all co-ops for year	Percent of available graduates employed in area of training
			Continuing full-time school	Entered Armed Services						
Auto body repairman	5-81.510	138	7	16	115		89	77	$54,273.57	72
Auto mechanic	5-81.010	598	23	95	480		364	231	177,649.68	77
Baker	4-01	8	1	2	5		4	8	3,317.14	86
Beauty operator	2-32.15	228	5	3	220	228	180	62	1,919.30	80
Boatbuilder, wood	5-25.610	2		1	1		1	2	1,942.00	100
Brick or stone mason	5-24	2			2		2	2	1,110.00	100
Cabinetmaker	4-32	14	2	3	9		9	14	10,128.44	100
Carpenter	5-25	59	5	5	49		32	15	11,935.26	65
Cement, concrete finisher	5-26	1			1		1			100
Chemical engineer	0-05.22	23	6	2	15		13	7	6,397.85	87
Civil engineer	0-16.01	2			2		2			100
Commercial artist	0-44	30	11	2	17		16	5	2,899.25	94
Construction machine operator, n.e.c	5-23	1			1		1	1	682.00	100
Cook, commercial	2-26	120	6	5	109		99	93	51,962.89	91
Cook, short order	2-26.33	1			1		1	1	1,098.00	100
Dairy products processor	4-06	3	1		2		2	3	3,449.00	100
Data process programer	0-69.981	27	2	3	22		21			95
Dental assistant	1-32.10	120	25		95		71	64	33,608.52	75
Dental technician	0-50.06	1			1		1	1	558.00	100
Diesel mechanic	5-83.931	21	1	5	15		12	7	5,700.43	80
Draftsman	0-48	281	70	32	179		155	97	77,357.91	87
Dressmaker	4-25	14			14		11	11	2,960.80	79
Electrical appliance serviceman	5-83.041	1	1					1	417.66	
Electrical engineer	0-17.01	66	6	3	57		54	2	2,880.00	95
Electrician	4-97.010	32	5	6	21		15	2	1,298.27	71
Electrician, n.e.c.	4-97	135	28	26	81		58	15	9,033.58	72
Electrical motor repairman	5-83.433	1			1		1	1	865.00	100
Electrical repairman	4-97.420	57	7	7	43		28	27	18,602.69	65
Electronic mechanic	0-66.80	24	2		22		21			95
Electronic technician	5-83.444	75	13	9	53		47	2	1,016.20	89
Fabricated plastic	5-10	2	1		1		1	1	972.57	100
Fabrication textile, n.e.c.	6-27	25			25		25	25	11,124.80	100
Farm machinery mechanic	3-35	13		2	11		11	11	5,982.66	100

PLACEMENT RECORD OF VOCATIONAL GRADUATES BY TRADE, OHIO, 1964-65—Continued

Occupation or trade	Code	Total number of vocational graduates	Graduates not available for employment		Graduates available for jobs	Number passing licensing examination (cosmetology, practical nursing)	Total number placed on jobs using their vocational training	Total number working as co-ops in senior year	Total earnings of all co-ops for year	Percent of available graduates employed in area of training
			Continuing full-time school	Entered Armed Services						
Financial institute clerk	1-06	1	---------	---------	1	---------	1	1	$1,126.45	100
Floor layer	5-32.752	3	---------	---------	3	---------	3	3	2,404.95	100
Floral designer	0-43.60	8	---------	---------	8	---------	3	8	4,612.85	38
Food preserving, canning	4-04	1	---------	1	---------	---------	---------	1	399.00	---------
Foundry occupations, n.e.c	6-82	10	2	---------	8	---------	4	1	1,432.50	50
Furniture repairman	4-35.710	6	---------	3	3	---------	1	6	4,797.77	33
Glazier	5-77	1	---------	---------	1	---------	1	---------	---------	100
Heat treat annealer	4-87	1	---------	---------	1	---------	1	1	765.00	100
Hospital attendant, n.e.c	2-42	16	---------	---------	16	---------	13	16	11,012.83	81
Industrial engineer	0-18.01	125	4	9	112	---------	105	11	15,840.00	94
Industrial engineer (professional and kindred)	0-18	9	---------	---------	9	---------	9	---------	---------	100
Janitor	2-84	13	2	2	9	---------	5	10	5,929.19	56
Kitchen manager assistant	2-25.42	1	---------	---------	1	---------	1	1	1,116.00	100
Kitchen supervisor	2-25.41	7	---------	---------	7	---------	6	7	13,763.50	86
Laboratory testing technician	0-05.70	14	5	2	7	---------	4	---------	---------	57
Landscaper, nursery	3-38	3	---------	---------	3	---------	3	1	2,177.00	100
Launder apparel occupation	5-57	8	1	---------	7	---------	6	7	5,977.69	86
Library assistant	1-20.01	2	1	---------	1	---------	1	2	1,936.00	100
Line serviceman, T/TP	5-53	1	---------	---------	1	---------	1	1	1,125.00	100
Lithographer	4-46	8	---------	---------	8	---------	7	8	5,357.80	88
Machinist	4-75	540	37	59	444	---------	369	135	103,609.71	83
Mach. Shop rel., n.e.c	6-78	152	10	19	123	---------	106	47	55,976.20	86
Manuf. prof.. appl., n.e.c	5-09	1	1	---------	---------	---------	---------	1	823.00	---------
Manufacturer, radio	4-98	122	34	24	64	---------	40	32	45,126.00	63
Meatcutter, except slaughter	5-58	17	4	3	10	---------	7	17	19,164.88	70
Meat producer, preparation	4-09	1	---------	1	---------	---------	---------	1	1,162.00	---------
Mechanical repairman, airplane	5-80	7	3	2	2	---------	2	7	6,409.95	100
Mechanic and repair, industrial	5-83.621	4	---------	1	3	---------	3	4	3,510.85	100
Mechanic repairman, n.e.c	5-83	2	---------	1	1	---------	1	1	1,295.50	100

Medical technician	0-50.01	13	4	1	8	----------	6	9	3,422.90	75
Nurse aide	2-42.20	119	50	1	68	----------	40	124	108,067.75	59
Nurse maid	2-07	4	2	----------	2	----------	1	4	3,193.36	50
Office machine serviceman	5-83.111	1	----------	----------	1	----------	1	1	1,111.50	100
Offset pressman	4-48.050	2	----------	1	1	----------	1	2	2,022.60	100
Operator, telephone	1-42	5	----------	----------	5	----------	4	3	2,359.00	80
Optician lens grinder	5-08	2	----------	----------	2	----------	2	2	1,930.45	100
Painter, exclusive construction maintenance	5-16	4	----------	1	3	----------	2	4	2,616.90	67
Painter, sign	5-27.910	1	----------	----------	1	----------	1	1	689.04	100
Patternmaker exclusive paper	5-17	3	1	----------	2	----------	2	2	2,639.03	100
Photographer	0-56	1	----------	----------	1	----------	----------	1	1,104.00	----------
Physician assistant	1-32.20	10	4	----------	6	----------	4	10	8,100.80	67
Plumber, gas steamfitter	5-30	17	2	2	13	----------	13	16	10,432.76	100
Practical nursing	0-52.83	976	6	3	967	976	890	----------	----------	92
Printer	4-44	81	7	10	64	----------	60	68	65,028.71	94
Printing pressman	4-48	70	2	5	63	----------	49	22	12,455.04	78
Printing, publication, n.e.c	4-49	12	1	----------	11	----------	6	5	3,989.44	55
Production clerk	1-18.66	1	----------	----------	1	----------	----------	1	551.79	----------
Production, rubber goods	4-57	2	----------	----------	2	----------	1	2	963.00	50
Radio repairman	5-83.411	36	10	5	21	----------	16	28	17,332.80	76
Refrigeration mechanic	5-83.941	11	2	----------	9	----------	8	11	5,703.57	89
Roofer and slater	7-31	3	----------	1	2	----------	2	3	3,017.00	100
Service clerk	1-18.68	1	1	----------	----------	----------	----------	1	2,771.00	----------
Stonecutter	4-68	1	----------	----------	1	----------	----------	1	562.50	----------
Tailor, tailoress	4-26	4	----------	----------	4	----------	3	4	3,148.66	75
Tinsmith-coppersmith	4-80	44	3	3	38	----------	32	28	23,974.05	84
Tire recapper	7-89.430	1	----------	----------	1	----------	1	1	467.50	100
Trade service, n.e.c	9-59	96	5	5	86	----------	78	91	88,803.53	91
Truck mechanic	5-81.030	2	----------	----------	2	----------	2	1	1,680.00	100
Typewriter serviceman	5-83.127	2	----------	----------	2	----------	1	2	1,250.00	50
Waiter, waitress	2-27	2	----------	1	1	----------	1	1	435.00	100
Water filterer	7-54.621	3	----------	----------	3	----------	3	3	2,057.30	100
Welder, arc	4-85.020	1	----------	----------	1	----------	1	1	1,147.96	100
Welder, combination	4-85.040	100	22	22	75	----------	65	25	16,104.15	87
X-ray technician	0-50.04	4	1	1	1	----------	1	3	482.00	100
Total	----------	4,844	437	416	3,991	1,204	3,348	1,599	1,217,610.18	84

Mr. **Shoemaker**. We always hear "you are training for obsolete occupations." I don't know a single one. I will introduce this and indicate the placement of these occupations directly from the people concerned.

We find within our State broad support from business and industry. I remember 600 people from an area in the State last year where they didn't have vocational training, 600 people spent their own money to come out to a dinner to find out how they could establish training for the county.

Mr. **Pucinski**. What was your answer?

Mr. **Shoemaker**. Our answer was, if we can get the money to match the 50 percent you come up with we will do it. We had $31 million last year and they were willing to match but I had only $7 million left.

I can tell you business and industry are ready to support vocational education. The question is how do we get it.

Mr. **Pucinski**. I would like to adjust to what you have just said. We had testimony yesterday and I must confess, I was pleasantly surprised to see the broad range of job training that is going on in this country, jobs that I didn't know existed.

It is encouraging to know our vocational educational people are keeping abreast of the needs of industry and trying to look ahead long range but I am sure more work has to be done.

Someone said they thought ESEA ought to help these people.

In looking long range, the technological improvements giving you leadtime to crank up these programs, rather than always being behind these programs to try to fill the unmet needs, we think in many fields this is now being done and we are very encouraged by it.

Mr. **Shoemaker**. I read in some previous testimony establishment of a dichotomy between general education and vocational education. I would suggest if people read the Vocational Education Act of 1963 seriously they would find involved in that act the weaving together of math, science, and the academic area, so-called, with the skills and technical knowledge into a core program built around the students occupational choice.

There is nothing much more modern than a Core program in which they weave together the concepts of general education and math and science into the total program.

What too often happens someplace is the pressure of the education function has tried to push vocational education back into a small block without recognizing the total effect on the aspirations of many students to inculcate math and science with their programs.

Miss **Dennis**. I am concerned, gentlemen, that we are not recognizing a certain type of organization and I refer largely to service organizations. You can speak glibly for business and industry but no organized group speaks for service occupations yet the largest organized field will come in services to people, child care, homes for the elderly, homes for the indigent, feeding people.

For example, feeding last year increased 13 percent, the largest growth of any kind of employment in the country.

We have no way to speak for the needs of these groups. I think we need to consider that we should likewise look at these people who do not have technical ability, they have to man the simpler jobs but they have to be equipped for it.

A large mass of low-income groups will have to learn to walk first in the service occupations and the brighter ones will go from there into adult training and into other areas. That is why I feel the high school program is very important. We will introduce them to a cluster of occupations and help them to choose.

Mr. **Goodell.** One of the allegations frequently made in vocational education is that you only take readily trainable youth. You are not taking hard core people.

Miss **Dennis.** I thought I was answering.

Mr. **Pucinski.** If you will yield, I think you will find Mr. Shoemaker's statement on page 3, the table he prepared for Ohio deals specifically with programs for disadvantaged youth.

Mr. **Goodell.** Does anyone have a comment?

Mr. **Shoemaker.** This is a question often raised, let me give you some figures given last week for Vinton County, one of the new centers we established. The average IQ in the center is 104, which incidentally, is about the normal IQ in high school. The range is from about 70 to 140.

The indication is simple, you can only service that range of people if you have the breadth of programs to serve that group of people.

There is no use in taking 80 IQ people and putting them in stenography. This is unfair and unkind to the person in terms of achievement. But if you can offer that person all kinds of work, programs specifically for the disadvantaged, not watered down but a program planned for them and progress on up to the program of electronics where the average IQ is 118—the point is we need broad programing.

Mr. **Goodell.** You have no question in your mind that vocational education in this country is being expanded to meet the needs?

Mr. **Shoemaker.** I have none and have evidence to prove it.

Mr. **Goodell.** What is your experience with the placement rate of disadvantaged youngsters? The lower IQ portions you have going through vocational education?

Mr. **Shoemaker.** Let me give a specific answer. Out of 1,100 students at this one center, 200, those with a lower IQ in terms of achievement, at the end of a year out of 200, 190 were in business, they were being paid. One of the little girls wrote, "For the first time in my life I feel I am worth something."

Mr. **Goodell.** Are these generally in the category of job corps enrollees?

Mr. **Shoemaker.** Some probably wouldn't have gotten in.

Mr. **Goodell.** They wouldn't have been qualified?

Mr. **Shoemaker.** These were classified as 75 to 90 IQ. We find others at 110 IQ that are just as disadvantaged, too.

Mr. **Goodell.** In comparing costs, what is the cost for the disadvantaged student?

Mr. **Shoemaker.** In terms of the disadvantaged student, in comparing the overall education, we would find the cost pretty common in terms of their vocational training. We would find the added cost would be in rehabilitative education and the guidance and counseling training we need for this group.

As far as the education per se it might be less than what we classify as the normal skill work because of the nature of the type of work in which we prepare these people.

Mr. Goodell. You might need less sophisticated equipment.

Mr. Shoemaker. Less sophisticated equipment in terms of these people.

Mr. Goodell. So, cost per enrollee per year would be comparable to the lower IQ than the higher IQ, with the one reservation you had, the rehabilitative?

Mr. Shoemaker. Yes, sir.

Mr. Pucinski. There is only one question that comes up, one problem, in trying to group these two groups together, the average youngster who wants to pursue a vocation education course as against the other students going on to the college and the disadvantaged youngster, is there a tendency to then create the impression of downgrading the whole vocational structure? There is a tendency among educators to create the impression that vocational education is for the dropouts, the slow learner or a youngster not going any place, is that tendency so?

Mr. Shoemaker. There is the possibility and we were deeply concerned with this as we moved with this. Again, I think what we found in centers today is that we must approach it from the standpoint of a broad effort. If out of 1,000 students, 102 are in the disadvantaged group, this does not affect your school. If, out of 1,100 you had 900 in that group, it would set in the minds of people in the area.

We have had an awakening, or education on this. I keep emphasizing that the disadvantaged group represents about 15 percent of a normal population. If your total program is based on this type of percentage basis, we have found that we do not have the stigma attached. If the stigma is attached, it is attached by the teachers and administrators and counselors of the school district which participates.

Mr. Pucinski. I asked that to clarify. I take it you think in the long run the idea would be established in the school that combines the disadvantaged with the other levels. It is wrong educationally to segregate disadvantaged?

Mr. Shoemaker. What observation I have done in the field, watching it, this is one of the things we have done, the history for the separate school for the disadvantaged has been poor. One I do not see the need for it in terms of the type of equipment to serve this group, it does not justify the need to pull them into a separate type center.

Mr. Pucinski. If the residential schools served the disadvantaged, would it be your concept to have the combined residential and nonresidential students in that school?

Mr. Shoemaker. This is a problem of administration I have not been able to see as yet. In a residential school to date, our experiences were on a residential basis, but involving—here we get into new terminology on disadvantaged. We involve in a residential center the disadvantaged socially, economically, and mentally in terms of ability.

Then we still offer a range of ability programs in which we have different ability levels still funding to go in a broad program of different ability levels so we are achieving the same goal without isolating the disadvantaged as far as the mentally disadvantaged.

Mr. Goodell. They are all poor?

Mr. Shoemaker. Yes; but poor or special maladjustments do not disrupt the learning capacities. We have programs for landscaping, in care of shrubs and gardens.

Mr. GOODELL. I have a letter from Mr. Sargent Shriver, OEO Director. I would like to quote a paragraph.

> In addition we also noticed that the most generally quoted cost of the Mohoning Valley student is $2,500, and that courses run from three to twelve months, but the majority of the courses are scheduled for 25 weeks. It is known that the Departments of Labor and Health, Education and Welfare allocations to date have averaged $2,486 per enrollee. The latest request for the Mohoning Valley project would increase the costs to $3,394 per enrollee or about $6,700 on an annualized basis. These costs, of course, do not consider the significant contributions which we understand were made to the School by various state agencies and local industry in the form of cash, services and other resources.
>
> Comparisons of the Mahoning Valley operating costs are difficult except in the most gross manner. On an annualized basis, the Federal Government's contribution alone could be $6,700. While the $6,700 is close to the present annual cost of a Job Corps enrollee, such a comparison is not valid. As you are aware, the Job Corps provides many services not provided by the School. Such as extensive medical and dental treatment, clothing, allowances and allotments outside of subsistence costs. Nor do costs attributed to the School cover such items as the recruiting, screening referral, and placement of enrollees. This service is provided by the Ohio State Employment Service without charge to the School; whereas Job Corps is directly charged for such services.

Mr. SHOEMAKER. The figure we gave was not $2,500. I don't know where that came from. Our figure, if you review the testimony, was $2,900 a year ago. All I can suggest is you take a look at the books and figures in terms of Mahoning Valley.

The comment there were dollars put into this facility from other sources, the only necessity was for obtaining funds from a private unit to equip the houses, since no other dollars were available to equip the houses from the standpoint of beds and remodeling the houses. There were no funds available from Manpower.

The only thing I can say is when you run into a dichotomy of figures, take a look at the books.

Mr. GOODELL. Your annual figure was?

Mr. SHOEMAKER. $2,900 plus, I quoted $3,000. The figure of $3,300 on a subsequent year, this could be the figure.

Mr. GOODELL. The statement that appears to be made by Mr. Shriver, could that be multiplied by two?

Mr. SHOEMAKER. I wish we had another $2,500 per student per year. The only thing I can suggest when you run into a dichotomy of figures is take a look at the books.

Mr. GOODELL. I would appreciate it if you would take a look.

Mr. SHOEMAKER. I will do that.

Mr. GOODELL. I would like you to clarify, if you would, how much you are figuring in your costs for equipment and so forth. I understand you have not built a new school, you have not gotten construction amortized in that sense, how much other costs are part of your figure?

Mr. SHOEMAKER. It is not a beautiful center, it is merely effective.

Mr. GOODELL. One final point. I think we discussed this earlier. I think you made the statement, Mr. Seagren, in your testimony, the Neighborhood Youth Corps inschool programs do not fill the void of the work-study program. Why doesn't it?

Mr. SEAGREN. I am sorry, I didn't get the question.

Mr. GOODELL. You make the point the inschool work Neighborhood Youth Program for work-study does not fill the void, why doesn't it?

Mr. SEAGREN. The staff reported to me just before I left Miami and they indicated when they were using them on the work-study program.

They were, through their own control, placing them through advisory committees, placing them on jobs existing in occupational training in high school. It was a supplementary type of work-study.

The other type program related to me is that they are in occupational work, but it has no relation to what they are receiving in vocational training during the day.

Mr. **Goodell**. Your observation is under the occupational youth program, they are not related to occupational work?

Mr. **Seagren**. That is right.

Mr. **Goodell**. Your work-study program does?

Mr. **Seagren**. It did when it was in existence and reports from our employees on the advisory committees actually came in and gave statements to that effect that they felt that we had at graduation better employees because of that rather than just the normal type of graduate without it.

Mr. **Goodell**. I would conclude by calling to the attention of the panel the opportunity to say I believe you described the Youth Corps program as offering private employment comparable to the work-study program with which we've had some brief experience. Unfortunately, in the Vocational Education Act, that bill will be introduced in the next week or two, I hope you have a chance to look at it and make comments and suggestions.

Thank you very much for your excellent testimony.

Mr. **Pucinski**. I might just add a rose by any other name, you still call it a rose.

Thank you for your excellent testimony this morning. Thank you Dr. Simpson, we want to thank you and the rest of your panel. I am sure you have given extremely valuable information on evaluating the problem for us.

The committee will stand adjourned until 3 o'clock this afternoon, assuming there will be no objection by the House to our sitting.

If there is no objection, we will sit at 3 o'clock. We will stand in recess until 3 o'clock this afternoon.

(Whereupon, at 12:20 p.m., the hearing was recessed to reconvene at 3 p.m. the same day.)

AFTERNOON SESSION

(The subcommittee reconvened at 3:20 p.m., Hon. Roman C. Pucinski presiding.)

Mr. **Pucinski**. The committee will come to order.

Resuming our hearings this afternoon, we are happy to have with us Dr. Kermit C. Morrissey, who is president of the Community College of Allegheny County, Pittsburgh, Pa., and who is here on behalf of the American Association of Junior Colleges.

STATEMENT OF DR. KERMIT C. MORRISSEY, PRESIDENT, COMMUNITY COLLEGE OF ALLEGHENY COUNTY, PITTSBURGH, PA., ON BEHALF OF THE AMERICAN ASSOCIATION OF JUNIOR COLLEGES

Dr. **Morrissey**. Thank you, Mr. Chairman, and I would like to have the statement I submitted as a matter of record.

Mr. **Pucinski**. Very fine. This statement will go in the record in its entirety.

(The statement referred to follows:)

STATEMENT OF DR. KERMIT C. MORRISSEY, PRESIDENT, COMMUNITY COLLEGE OF ALLEGHENY COUNTY, PITTSBURGH, PA., ON BEHALF OF THE AMERICAN ASSOCIATION OF JUNIOR COLLEGES

I. A GENERAL STATEMENT OF THE PROBLEM

The Vocational Education Act (VEA) of 1963 is intended to assure that persons of all ages in all parts of every state have ready access to high-quality vocational education at a level suited to their needs and abilities and related to the nation's need for highly skilled manpower.

Nevertheless, a great many young people and adults in many states are not benefiting adequately, if at all, from this program at present, at least at the postsecondary and adult levels. One reason for this is the limited amount of federal support available. Representatives Carl D. Perkins, Roman C. Pucinski, and other sponsors of H.R. 2366, H.R. 7380, and related bills, are to be congratulated for their efforts to increase the total funds available.

Another reason is that the resources of the nation's two-year colleges, technical institutes, four-year colleges, and universities are not being utilized fully or effectively in the program. This is true in the education of postsecondary and adult students, in research and innovation, and in teacher training—all areas of great concern to the nation's institutions of higher education. The recent blue-ribbon Presidential Commission on Technology, Automation, and Economic Progress gave special attention to the nation's unmet needs in postsecondary vocational education, and the role of college-level institutions in meeting these needs.[1]

The Vocational Education Act is permissive. That is, it gives state boards of vocational education, many of which are oriented toward elementary and secondary education, sole discretion to distribute funds. Some state boards have chosen to award little or no support to junior colleges or four-year colleges, and others are establishing new systems of postsecondary "area schools" which may offer vocational courses in geographic areas where junior colleges or other colleges are already providing vocational programs, or actively planning to do so. This may result in a duplication of expensive facilities and staff, and a waste of federal, state, and local tax dollars. The growth of this new area school system, although it may serve very useful purposes in some cases, should itself be the subject of careful review by the United States Office of Education, Congress, and the appropriate state and local officials.

In most states, junior colleges as well as four-year colleges are administered by boards or agencies other than the board of vocational education. In these states, there may be inadequate communication between these two separate systems, one addressed primarily to elementary-secondary education and the other primarily to higher education.

In some instances, state boards of vocational education have simply not included junior colleges and four-year colleges in the program. In others, state boards have required adherence to teacher certification laws or other regulations which are not appropriate professionally for college-level programs. In a number of instances, state boards have not made copies of relevant state and federal public documents, such as the state plan and regulations and announcements, readily available to college-level institutions.

As a result, the Commission on Legislation of the American Association of Junior Colleges has urged both statutory and administrative changes in the program. Similarly, the National Association of State Universities and Land-Grant Colleges, and the Association of State Colleges and Universities, at their November 1966 convention, urged amendments to permit colleges to participate more fully and asked that special attention be given to teacher education. Member colleges of these three associations together enroll a good majority of the nation's college students and have a special interest in innovation and teacher training.

Although federal law *requires "representatives" of higher education*, many state boards have not involved these representatives in a meaningful way in decision-making and planning. Further, although federal regulations require (Section 104.3) that state boards report to the Office of Education (USOE) the "role and extent" of college-level participation in the program, this has not been

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[1] *Technology and the American Economy*, 1966.

interpreted by the USOE to mean that state boards must report the *names* of postsecondary institutions which receive federal assistance, the *enrollments* at such institutions, nor the *dollar amounts* in federal VEA support which they receive. Further, state boards do not report on the frequency of meetings with their higher educational representatives, nor the extent to which such representatives are otherwise actually involved in decision-making or planning. Many such representatives do not appear to be in close contact with other state or local higher educational officials, such as state directors of junior college education.

Federal law does not require that *objective* criteria be developed for the awarding of funds—for example, support on a per-student basis. As a result, in many states decisions are made on a highly subjective basis. As a contrast, under the Higher Education Facilities Act, criteria for awards are clearly and objectively set forth in a state plan which is made available to all potential applicants, there are clearly defined deadlines, all meetings related to the awarding of funds must be public, a public record must be kept, and there is a clearly defined appeals procedure. The Vocational Education Act does not require such clearly defined procedures.

We understand that some secondary school systems may also be treated inequitably under this system, since they too are subject to a state system which often operates by subjective judgment.

Under present law, the United States Office of Education has somewhat limited authority to deal with this situation, since most decision-making power rests with the states. However, we believe that the USOE can take some steps—collecting and publishing data on the participation of college-level institutions by states, requiring the states to submit more detailed reports on the role and extent of college-level participation, and so on.

One point needs to be emphasized: the American Association of Junior Colleges does not question in any way the importance of secondary school vocational education. If additional financial assistance is made available to postsecondary education, the Association believes that the total available should be increased so that secondary education will be supported at least at its present level and preferably at a higher level, as is envisioned in H.R. 2366 and H.R. 7380.

II. SPECIFIC RECOMMENDATIONS

1. *Innovation.*—The proposal for federal support for innovative and exemplary projects in vocational education, requested by the administration in Title II of H.R. 6230, is unquestionably very worthwhile. It is our hope that this program will make some funds available to support innovative projects at the postsecondary level, and also that junior colleges, four-year colleges and universities will be able to participate in this program as administrators and consultants, helping to develop innovative projects at all levels of vocational education, secondary, postsecondary, and adult.

For this reason we hope that there will be no effort to give state boards of vocational education a veto power or near-veto, either in law or by informal agreement, over projects in their states.

Unquestionably, state boards and departments should play a part in this program. However, those state boards which have not involved college-level institutions actively in their VEA programs cannot be expected to include colleges in the innovative program either. Colleges and also some local school systems may suffer if state boards, which may be unaware of their programs and potential, have a veto power. A state veto power might also prevent some colleges or local schools from drawing on innovative resources outside their own state. Resources for innovation are not spread evenly over the nation, and colleges as well as secondary schools should be free to draw on educational resources in other states without the fear of a state veto.

We hope, therefore, that Congress will support this proposal in its present form and that the legislative history will show clearly that no state veto power is intended either explicitly or implicitly in the administration of the program.

2. *Teacher training.*—Pages 10–17 of H.R. 2366 and H.R. 7380 deal with proposals for teacher training. The assumption here is that teachers could be trained at all levels, secondary, postsecondary, and adult. However, almost all the funds would be administered by state boards of vocational education. The bill recommends $20,000,000 for this program in fiscal 1968, $30,000,000 in fiscal 1969, and $35,000,000 in fiscal 1970.

We feel that here, as in the case of innovation, funds for teacher training should not be allocated solely through state boards of vocational education. Teacher training is primarily a responsibility of higher education, of American colleges and universities. The present federal programs for teacher training—the college teacher program under the National Defense Education Act as well as the institutes for guidance counselors and teachers under the same Act, and the elementary-secondary teacher training programs under the Higher Education Act—are all administered by direct grants made by the Commissioner of Education to individuals and graduate schools. The same is true for the proposed new Education Professions Development program in the administration's Higher Education Amendments Act of 1967. None of these programs channel funds through state departments.

As in the case of innovation, state boards should certainly be eligible to participate in this program to develop their own proposals for teacher training, but they should not be the only channels for federal funds. There is no assurance either of adequate support for college-level vocational teacher training nor of the utilization of all the most professionally qualified colleges and universities under state vocational board administration.

We feel that these teacher training provisions are probably the most important and in their present form the most controversial part of the proposed legislation. Since these provisions were not part of the similar bills on which hearings were held in 1966 (H.R. 15444 and H.R. 15445) we hope that members of Congress the USOE, and everyone concerned with teacher training will give them the most careful examination.

A survey now being made by the American Association of Junior Colleges and the Association of State Colleges and Universities indicates a substantial and growing interest among a great many colleges and universities in expanding teacher training programs at the college level, including programs for post-secondary vocational education. Most of the nation's universities, we believe, would much prefer a federal program administered by the Commissioner of Education.

A relatively small part of the suggested program, on pp. 14–17, does make available a limited number of fellowships each year to be awarded directly by the Commissioner. This appears to be a worthy purpose, and our only suggestion is that the number of fellowships suggested should be enlarged if possible to meet the need for training teachers and administrators.

3. *The allocation of Vocational Education Act funds.*—The Commission on Legislation of the American Association of Junior Colleges believes that statutory changes are necessary in order to permit college-level institutions to participate effectively in this program. One way to achieve this purpose would be to set aside, mandatorily, certain minimum Vocational Education Act funds in each state for institutions at the college level, and to amend laws and regulations in order to make certain that eligible institutions had the opportunity to make use of these funds. States wishing to provide support above the suggested minimum would be free to do so, and total funds should be increased in order to support secondary education at least at the present level.

Another solution to the problem is to establish a separate title for college-level vocational education, without interfering in any way with the present VEA programs. In this way, Congress would simply recognize that college-level vocational, technical and occupational education presents a different set of problems and needs, and should be dealt with separately.

The separate title suggestion is very similar to the "*Technical Education Act 1962,*" H.R. 10396 of 1962, which was filed by Representatives Brademas, Giaimo, O'Hara of Michigan, Quie, and Goodell, with strong support from Willard Wirtz, then Undersecretary of Labor, and from the higher educational community.[1] The same propsal was also filed as part of President Kennedy's omnibus education bill, H.R. 3000 of 1963. If the Subcommittee wishes to consider appropriate language for such a separate title, the 1962 and 1963 legislation would be an excellent beginning.

If either the separate title or the set-aside approach is adopted, it is suggested that as far as possible operating cost support under this program be made available on a per-student basis, as is now done at the junior college level with federal VEA funds in Pennsylvania and Oregon. This approach tends to eliminate a good part of the subjectivity which now exists in this program. Support for construction, equipment, and other purposes would have to be provided on a project basis or some other basis.

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[1] Organizations supporting this proposal in 1962 included the American Council on Education, National Association of State Universities and Land-Grant Colleges, American Association of Junior Colleges, American Personnel and Guidance Association, and National Society of Professional Engineers.

4. *State administration of the program.*—Whether or not separate funds are made available, each state should have the option of creating or designating a separate state agency to administer the college-level vocational program. Such a program should administer not only the allocation of funds, but planning, supervision, and evaluation of all college-level programs. It should include representatives of college-level institutions participating in the program and some representation from the present state board of vocational education, in an advisory capacity. The two boards should work cooperatively, but the law should recognize their separate functions. An alternative procedure would be the designation of additional, voting members representing higher education to the state board.

5. *Postsecondary area schools.*—There appears to be a need for a review on the highest levels of the United States Office of Education, by Congress, and by the states of the growth of a separate system of postsecondary area schools, especially in areas and states served by other postsecondary institutions. Since substantial funds are going for the construction of this system, it is suggested that the appropriate federal, state, and local authorities should carry out such a review as soon as possible.

This area school system raises another problem since most educators today favor *comprehensive* institutions at *both* the secondary and postsecondary level, rather than separate and isolated "technical" schools.[2]

6. *The responsibilities of the United States Office of Education.*—We believe that the Department of Health, Education, and Welfare and the *entire* Office of Education—as well as the Bureau of Adult and Vocational Education—share responsibilities for the evaluation of this multi-million-dollar federal program.

There is no question that officials of the Office of Education are very interested in the development of postsecondary vocational education. However, so far USOE has not collected nor published data by which this program could be evaluated. Nor has the Office interpreted the "role and extent" regulation in such a way as to get a clear picture of college-level participation in the states, so that executive agencies, Congress, and the general public can understand the whole situation.

The following are some of the steps which USOE should take and can take under present federal law:

a. *Data.*—The USOE can request every state board of vocational education to make available such information as the names and addresses of all postsecondary institutions which participate in each state—junior colleges, technical institutes, four-year colleges, and other postsecondary area schools, together with data on full-time and part-time enrollments and on the dollar amounts of federal VEA support which go to these institutions, both for construction and for operating costs. USOE should also request information about the careers of the *graduates* of postsecondary programs. Some of this information may already be available at USOE; in any case, most of it should be readily at hand in each State. This information should be published as soon as possible, and kept up to date annually.

b. *Role and extent.*—We suggest that USOE revise its reporting forms in order to determine more clearly, under Section 104.3, the exact role and extent of higher educational participation in the program in every state. Such a report should indicate such information as the frequency of meetings of the advisory council representatives, whether the representatives are present on all occasions when decisions are made about awards, whether they are in close touch with other college officials such as state junior college directors, and so on.

c. *Public documents.*—All federal and state public documents—state plans, annual state reports to USOE, federal regulations, announcements, and circular letters, and so on—should be made available to all interested institutions, both colleges and secondary schols. These documents should also spell out much more clearly the basis on which funds are awarded, in the states where this is not done at present.

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[2] The National Association of Secondary School Principals has raised doubts about the area vocational school approach in its recent publication, *Educating for Work: A Report on the Current Scene in Vocational Education*, by Dale C. Draper. (National Education Association, Washington, D.C. 1967.)

4. "*Problem states.*"—There should be a careful investigation by USOE officials and by Congress of some of the states in which there are persistent reports that junior colleges and other colleges are receiving little or no support, are subject to inappropriate regulations such as teacher certification requirements, or are otherwise unable to participate effectively. This survey should be related to the study of the growth of the new postsecondary area school system in many parts of the nation.

This investigation should make inquiries of junior college and other college educators as well as of state boards of vocational education.

5. *Encouragement of cooperation.*—USOE should also work more actively to encourage closer communication and cooperation between secondary and postsecondary vocational educators. A very useful approach to this problem would be the convening of a national conference of vocational educators at all levels, together with representatives of the appropriate professional educational organizations, to review this whole problem. Regional or state conferences of secondary and postsecondary officials and educators, under USOE auspices, would also be valuable. Such conferences should invite those institutions and groups which do *not* participate effectively at present as well as those which do.

6. *Advisory Committees.*—The Commissioner of Education can also help to resolve this problem by appointing more people with a special professional background in college level vocational education to the permanent Advisory Committee appointed under Section 9 of the VEA.

Mr. PUCINSKI. Is it your plan to summarize the statement?

Dr. MORRISSEY. Yes.

Mr. PUCINSKI. Proceed in your own way.

Dr. MORRISSEY. Thank you, Mr. Chairman.

The point of the Vocational Education Act of 1963 was to assure that there would be a major expansion of vocational education at all levels, secondary school, postgraduate, including adults. It is perfectly clear that since the passage of that act the results have been uneven, to say the least.

A part of the reason for the uneven development is the limitation on funds. That is, there is a general shortage of funds available for vocational education.

This has had its own impact in limiting the types of things that could be done or even attempted.

I think it is important to note that the Vocational Education Act is different in some respects from other educational acts passed in recent years. Notably, it does not set specific guidelines to make sure that goals are to be achieved.

Vocational education, the State boards of vocational education, or State boards of education whose strong orientation is to elementary and secondary education have sole discretion in distribution of funds.

I have stated that some State boards have little incentive to offer support to vocational education, and I can support that from 5 years' experience in Massachusetts, where no funds were given for 2 years, and token funds in the next 3, and that is still the condition in that State.

In Massachusetts I would again cite the proliferation of schools in the same regions where community colleges are being planned and are operating.

This duplication of effort results because no one is really "minding the store," within the State or within the U.S. Office of Education. In the case of the Office of Education, the fact that there is no reporting data, no system by which the distribution of funds can be quantified, who is getting the money, how much money, and so forth. This leads to a complete absence of information as to who is doing vocational work within the States in the United States at the present time.

The difference between a college level or post-high-school operation and the attitudes, habits, and professional thrust of State departments of education are simply very different. They are not the same, and to assume they are the same is fundamentally a mistake.

Let me make it clear that I have a very enjoyable experience in the State of Pennsylvania. I am not suffering personally from any shortage of vocational funds. They have made the adjustment within the State department of education. It is quite satisfactory. That is unusual; in most other States it is not nearly as good.

The Federal law at present requires representation of junior colleges in decisionmaking, and in point of fact this is usually a token matter. Very often there is no real representation in a functional sense. Decisions are made in a vacuum. The Federal funds are dispensed without reference to the needs of all the vocational education.

I would like to underscore the point that I am not here, nor does the association question the importance of vocational education in the United States. We feel that the total sums available are inadequate and should be increased, without any question.

Now, for specifics pertaining to the legislation that is before you: First, on the question of innovation. The innovation proposal as contained in the bill under the jurisdiction of the Commissioner of Education is, in our judgment, a very desirable feature, and we hope that under no condition will there be any effort to give State boards a veto power either in law or agreement over any in the States.

We are not suggesting any exclusion. We are suggesting that they under no condition should have the veto power. That would prevent the colleges and local schools from drawing on all the resources available to them.

Therefore, we support the innovation proposal in its present form. We hope the committee and the Congress will make it perfectly clear that no intention exists for the creation of veto power.

Under teacher training, it is probably the most serious deficiency in the present bill, as we see it, first because it is to be entirely under the State departments of education, and the training of teachers is opposed to high school orientation.

There is no excuse for placing the responsibilities in the State department of education. There is an irony here, as training of teachers is being taken away from the State departments of education, and this would represent a backward step. The training of teachers is desperately needed; a number of innovations are vitally concerned in higher education—we think they should have a chance to try and submit proposals directly to the Office of Education.

Now a word about the allocation of Vocational Act funds. It was the hope of Congress in 1963 that a reasonable distribution would occur among cooperative men. People in education are behaving very much the way other people have. Having enjoyed a near monopoly in a very limited sphere for a number of years, the vocational people have not had enough funds to afford the luxury of cooperation.

The community colleges, a new and very rapidly growing segment, with a primary dedication to excellent career and vocational opportunity training, have been, for the most part, excluded from the possibility of inclusion.

One possibility here would be to mandate a specific percentage of funds for the post-high-school opportunities, and I notice the panel made reference to the largest segment of their work being in the post-high-school field.

A preferable solution might well be to consider a separate title for college level vocation, and without interfering in any way with the present operation of the Vocational Education Act. This case would be simple, forthright recognition of college level work in preparation for job training, for vocations, and dealing with it separately.

There certainly should be separate boards to administer the fund within the States. A model for this was provided in the legislation field in 1962. Mr. Brademas, Mr. Goodell, and Mr. Quie participated then in President Kennedy's omnibus education bill of 1963. It seems to me there is excellent language already available for accomplishing this desirable end.

I repeat that independent of other options, a separate board or separate commission independent of vocational education at the secondary level should be charged with responsibility for administering the program.

I think that it is time for some unit of the American Government, HEW or perhaps a congressional committee, to look into the whole question of duplication in the area of regional vocational schools and publicly supported community colleges in the same region sometimes doing the same job, clearly overlapping each other and clearly representing a waste of public funds.

And, finally, a need for a far more effective reporting system on the part of the U.S. Office of Education to create a system of data collection to make it clear who is doing what, where money is being spent. This would be enormously helpful to educators and certainly to the Congress in terms of developing information for the benefit of existing programs and the consideration of new ones, and a proper public documentation of all of these points.

There is a reference made here to problem States. I would nominate Massachusetts as a primary example of what I call a problem State, one where funds are being wasted, where communication is not occurring and where duplication of effort is now demonstrable, and the fact that cooperation should certainly be encouraged by the U.S. Office of Education in order to get some of these people together perhaps for a look at the larger common viewpoint.

These are at least some of the points involved, and I would conclude by noting that with the change in the world of work, there is a change in the way in which men and women prepare for work. That what used to be entirely an elementary and secondary concern is now becoming a matter of equal concern at the college and post-high-school level. In order to do this job, funds are clearly required, and it is in this sense, and to carry out the original purposes of the act of 1963 that this statement is submitted, Mr. Chairman.

I thank you.

Mr. Pucinski. Do you suggest here that we bypass the State boards in allocating funds for the training programs to go directly in the universities?

Dr. Morrissey. Yes.

Mr. PUCINSKI. They now have adequate facilities and adequate funds under NDEA, and various other programs. Do you know how many teachers in vocational education have the universities turned out in the last 5 years?

Dr. MORRISSEY. No; I don't have a total for vocational education. I do not.

Mr. PUCINSKI. My guess would be that there would be very few. Do you say none?

Dr. MORRISSEY. No; I say I do not know. I would assume very few, myself.

Mr. PUCINSKI. Would you have any suggestion of why they have been so discriminatory in terms of training vocational schoolteachers?

Dr. MORRISSEY. Well, I don't think they have necessarily been discriminatory. I do not think this has had a priority concern; first, because there has been no concern made manifest.

Let me give you an illustration. I am concerned about the training for my own college. I am negotiating with a Carnegie Tech and they are willing to consider training programs in specific fields. Where is the money going to come from for this?

Mr. PUCINSKI. Why doesn't it come out of NDEA?

Dr. MORRISSEY. Most of it has been gobbled up by a number of disciplines in universities and colleges.

Mr. PUCINSKI. This is the point we are making here, and this is the point we have been making for the last 2 days. This is why we do not agree with the commissioner, who was here yesterday, suggesting that perhaps what we proposed to do in section 6 of this bill, the establishment of fellowship and exchange programs for vocational teachers and educations, that title V of the Higher Education Act would do the same.

We do not agree with that. We need only to look at the record and the statement you made here now to convince us that we need specific authorization for such programs in this bill. We passed NDEA in 1958, I believe it was, and we have known of the need for trainng teachers in vocational education much earlier than that..

Earlier testimony before the committee indicated that by 1970 there are going to be in excess of 9 million youngsters participating in some form of vocational education; 50 percent of the high school population of this country is going to be involved in vocational education in less than 3 years from now.

Now, certainly the educators have known of this. This is not a new phenomenon, and yet apparently, as you yourself admitted, the other disciplines have gobbled up this money, so it seems to me the only way you are going to get any real action here in terms of providing the teaching personnel that we need to man the programs for 1970 is to specifically earmark the money for this purpose, and no other purpose, and I would be much more inclined to agree with your recommendation if the record had indicated otherwise.

Dr. MORRISSEY. Mr. Chairman, respectfully, there was no thrust in NDEA with emphasis on vocational education. The thrust went very much the way of a science breakthrough.

Mr. PUCINSKI. Who is supposed to supply this? You and the gentleman from Indiana and the gentleman from New York have offered these amendments—I believe they offered them in 1963.

Dr. **Morrissey.** Yes.

Mr. **Pucinski.** In other words, they have certainly called attention through their efforts to the need, but it is quite obvious that the universities continue to look upon vocational education as a stepchild, just as the Bureau of the Budget, which as I said yesterday is college oriented, continues to look at vocational education as a stepchild. I would have to tell you that in the light of experience that we have had for the last 8 years, I would be constrained to insist on doing it this way rather than trusting these institutions of higher learning to suddenly wake up to the needs of America.

Dr. **Morrissey.** Some other things have changed, too, Mr. Chairman, which may give room for future optimism. The change in the universities themselves and the appreciation of what is needed to provide professional and subprofessional people.

We work now with the University of Pittsburgh Medical School. This is going to continue, and there is, by the way, a dawning realization in many universities and colleges. At any event, training has to be done at an institution of higher education. That is clear.

Mr. **Pucinski.** Dr. Morrissey, I have regard for your assurances here, but I must say to you that there is nothing in the record to indicate that these people have in any way realized the revolution that has taken place in vocational education. If we are going to meet the needs of 1970, or even begin to come into the ball park to meet these needs, my strong feeling is that we are going to have to respectfully resist the recommendations of the administration and go our own course on this.

Now, in trying to follow your recommendation, one of the strong points of this fellowship exchange program is to me the following: I would like to call your attention to page 11 of the bill, which would authorize the Commission to make grants to State boards to pay the cost of carrying out cooperative arrangements for training of experienced vocational education teachers and administrators and other persons between schools, vocational schools, or between schools offering vocational education and private industry.

Dr. **Morrissey.** Yes.

Mr. **Pucinski.** So what this section attempts to do is to bring private industry and the expertise that it has to offer in this very complicated field into the picture, and this is one of the things that we are trying to do here now.

If we begin to turn this job over, as you said in your statement, to the institutions of higher learning, I am not sure that I agree that your reasoning is quite correct as regards vocational training. The best proof of what I am saying is that even though they have the wherewithal, and have had it since at least 1958, and a good deal before that, they have not at all seen fit to recognize the needs of this particular sector of our community.

Dr. **Morrissey.** Again, Mr. Chairman, I can only submit some very specific and concrete evidence at the current moment that I am experiencing.

When I need library faculty to start a new 2-year program in library science, I go to the University of Pittsburgh. When I need faculties for 2-year programs, I go to the private universities or public universities. This is the only place I can go.

A State department of public education would not even understand what I was talking about in most cases.

Mr. PUCINSKI. You see, Doctor, under our provision here, there is nothing to preclude a State agency from entering into contracts with these institutions of higher learning. You said that teacher training is primarily the responsibility of higher education. I am not quite sure that I agree with that conclusion as regards vocational training.

At ths point, the fact remains that, if indeed you are correct, there is enough latitude in section 6 for a State board to follow that recommendation.

Dr. MORRISSEY. Yes.

Mr. PUCINSKI. On the other hand, there is also latitude in section 6 to give them an opportunity to work out some educational programs with private industry, if that is where it is needed. The bill says if they do provide some program and some help in vocational education this can be done—you see, we provide the latitude to do it your way.

Dr. MORRISSEY. But, Mr. Chairman, the history of the relationships between vocational education and State boards of education is one of nettles. I do not think it is curative in itself of legislative language. It is a different approach. They have different modus operandi, as it were.

I would say if teacher training remained within a State department of public education, it would touch only a small part.

Mr. PUCINSKI. We will get some more.

Doctor, would you mind using that microphone? We can't hear you very well.

Mr. Ford?

Mr. FORD. Thank you, Mr. Chairman.

I note that you draw up the dilemma of the colleges all across the country. This committee has heard school representatives say, "We should be treated like higher education institutions for some purposes, and we should be treated as an extension of the public school system for other purposes."

A few years ago when it seemed that the easiest place to get money was in the higher education bill, there was a great push to quit considering junior colleges as part of the public school system and to consider them as part of the higher education system.

What seems to be a simple concept that you are seeking here takes on a different light when looked at in view of what has happened since the passage in 1963 of the Omnibus Education Act.

What we would appear to be doing here is reacting to the frustration of junior college administrators in attempting to circumnavigate the educational structure of the State. I think we all agree that one of the great problems we face is the lack of uniformity in basic structure of public educational systems throughout the country.

In my State of Michigan, there is nothing lowlier than the local board of education; and in some States there is nothing greater than the State superintendent of education. (Between those two there is every shading of difference.) The thought occurs to me that although you pose what seems to be a ready solution to your immediate problem, it suggests several other problems that would arise out of consideration for this purpose of a truly higher education agency, separated from the others, and at the same time bringing higher education, or colleges and universities for your programs, into the Vocational Education Act.

Maybe we ought to take a good look at whether this traditional elementary and secondary approach is too narrow. But the real problem is, as posed by what you suggest, that some States are apparently reluctant to consider the junior college, or any college for that matter, as a proper place for vocational education.

In my own State, this is not the case. I do not believe that Michigan is one you would suggest as having trouble.

Dr. **Morrissey.** No.

Mr. **Ford.** One of the best vocational programs in operation is the Henry Ford Community College, with a student body of 10,000 at the present time. Henry Ford Community College had the advantage of taking over the Henry Ford Apprentice School from the Ford Motor Co., and got off to a running start.

But when you go just a few miles from that area of the State, you find school people kicking up their heels because persons other than those working on a 2-year program are taking up space in the junior colleges.

So we would find ourselves right in the middle of the battle that is now raging around the country on whether the junior college is fish or fowl. I believe that we might be better off if we were able to document, through these hearings, the kinds of problems that are created by a State going one way or the other in the consideration of the status of vocational education, and through that documentation build a record here that would find a less direct and severe way of saying to the Office of Education, "You shall examine the State plan, and be alert for full consideration of everyone who conceivably should be afforded vocational education opportunities."

Maybe that is not strong enough and will not do the job, but I would like to examine that possibility of approaching it.

Dr. **Morrissey.** Congressman Ford, if we took the suggestion that there is a dilemma imposed here, and there is real tension, and I am not unaware of it, but there is a lot of tension right now by a terribly unsatisfactory situation in this country where at least a dozen States are not performing or even trying at a minimal level to meet the minimum requirements of Federal law, and I do not think that can be ignored.

Mr. **Ford.** You say there are States who have control of their junior colleges through the same structure by which they control the elementary and secondary schools.

Dr. **Morrissey.** I cannot give you a figure, but my hunch is yes. The matter is too broad——

Mr. **Ford.** But the trend is to couple them into one. They are below the level of the county or other intermediate school levels generally?

Dr. **Morrissey.** No, moving now to much larger regions. The State itself as a single region for planning is now vital. There are at least six States that are there, and another half dozen are moving there. Just the necessity of planning is requiring larger and larger planning units.

Mr. **Ford.** Then you would say that the trend for administration is away from the local agency?

Dr. Morrissey. Very, very much so in this business. This is part of the tension, by the way. This is built in. Many junior college systems in the United States came into being under local school committees and in their early years of development this functioned very satisfactorily.

Mr. Ford. If we make vocational education a higher education function under this legislation, does this not throw you into competition for this money with the more independent type of structure you have for the State colleges and universities?

Dr. Morrissey. Not necessarily, because the other parts of the system, except in rare instances, rarely perform career programs. Some is done by State universities on branch operations and things of this kind, but they are relatively minor portions of the total university's work. I could give illustrations right now.

Mr. Ford. Suppose we say there is a new title for institutions of higher learning to participate in vocational education funds, separate and apart from any relationship they have to the already-existing structure. Would we not be inviting them to jump in the school——

Dr. Morrissey. It would be extraordinarily optimistic if I would suggest that educators would show restraint. But more effective planning and definition, the whole idea of regrouping in States that have been going on for the last 10 years is proceeding now.

My own State of Pennsylvania has only started to rationalize its investments in public education. I am quite sure nobody is going to do everything when we have finished.

Some schools are ideally suited to do a superlative work. A university has to reach far below its attention level to do the career training—not the teacher training. The career training is below the attention level of a university aimed at creating new knowledge.

Mr. Ford. You mentioned another matter in your statement. We keep running into the problems of certification when we try to get into any new special program, but we are aware that many of the States require formalized so-called teacher training for elementary and secondary schools while there is no higher requirement for higher education.

In the field of vocational education, it appears to me we are not doing enough to find vocational education faculty members who can teach the subject they can do. A competent craftsman, for example, cannot afford to give up his craft to become a teacher. There is no place in this country that I know of where salaries would justify it, but he might be available if we could get him into teaching without requiring him first to go to a teachers college.

Dr. Morrissey. I do not think we are going to get those people if they have to go through those colleges. My engineers this year, for example, have come out of Westinghouse. My highest paid faculty member is a commercial artist who never went to a college in his life.

These are people we must take directly from the field, and then I would hope we could have cooperative programs with a university, where perhaps after two semesters that person could go on leave, funded by the way, to pick up other knowledge he needs, and I do not mean just in teaching courses, but we would like some type of refreshing possibility for this fellow, who perhaps has an engineering degree 8 years old. We would like to make that possible.

Mr. FORD. Thank you very much. Thank you, Mr. Chairman.

Mr. PUCINSKI. Mr. Quie?

Mr. QUIE. No questions.

Mr. PUCINSKI. Mr. Scheuer?

Mr. SCHEUER. Mr. Chairman, I must apologize. I have not been able to attend these hearings. I am trying to serve on two subcommittees at the same time. I do not know whether testimony has been taken on the problem that a lot of us have seen that the ghetto areas throughout the country are faced with. That is the problem of the hard core teenager who is roaming the streets with nothing to do and getting into trouble.

These kids need, in my opinion, a program—they are not being reached under any of the programs at the present time, and yet the unemployment rate among this group is about four times that of any other group.

Now, I think that it is obvious that many of them do need vocational education, but I am wondering what programs are being tailored to this group, because a lot of them do not have the means to stay in school unless there is some work connected with it, and I am wondering whether or not within this proposed bill pending before us there is any effort being made for training with some type of training allowance or work which would at least in part compensate them.

Dr. MORRISSEY. Under which study?

Mr. SCHEUER. Any one study does not reach too many of them at the present time. That might be the answer, but it is inadequate training on the one hand or inadequate compensation on the other.

Dr. MORRISSEY. We are currently trying to move into neighborhoods, precisely with the group you are discussing. In addition to this, from our total admissions pool that will come to us this spring, many of these students are going to be allocated from secondary schools.

There is no problem between us on this. Until such time as there is a country manpower program developed in full concert together over the next couple of years, we think we are going to be able to manage this, in which case we would like to provide opportunities for the largest possible range of human talent that we can develop.

No matter where it is, no matter who conducts it, or wherever it is. I am sorry I can't report results on the neighborhoods when we haven't gone into there yet.

Mr. HAWKINS. In Los Angeles, for example, we have training at the junior college level. Most of these youngsters are not headed for junior college, and even if they were they can't afford to continue on after graduation from high school. So they are excluded on that basis.

So it just seems to me that while these programs are desirous of reaching many individuals, they are not reaching those who are the hardest ones to reach. They are reaching those who are sophisticated and do not need counseling and guidance, and I do not think that is even available, and they are certainly not reaching those in other areas, problem areas that we are talking about.

I am not so sure whether or not this program can be tailored to meet that need, but certainly it seems to me it is headed in that direction, and with a little more effort it could be perhaps modified so that there could be some chance of having training allowances in connection with the training so that the children could be helped.

Dr. **Morrissey**. Headed toward an occupational goal, yes.

Mr. **Hawkins**. Thank you very much.

Mr. **Pucinski**. Do you have a question, Mr. Quie?

Mr. **Quie**. Yes, I have. I was just going through your testimony here while waiting. I would like to get a little bit into the teacher training program, if I may.

Have you been involved in the training of vocational teachers yourself?

Dr. **Morrissey**. Not personally, no.

Mr. **Quie**. And so you do not have any experience, then, with State boards of education handling the money for allocating——

Dr. **Morrissey**. Yes. I have had extensive experience with State boards of education.

Mr. **Quie**. What is your reason for stating that the State boards of education should not receive the money to administer this?

Dr. **Morrissey**. Generally for purposes of a collegiate nature, anything post high school, I have not found State boards of education terribly responsive in this area.

They have their own needs, they are compelling, and they tend to follow their own track. There is a rather different dialog, there is a different style, as it were, as pertains to college, and I find it very hard to get through to these people. This is just simply a problem nationally.

Mr. **Quie**. In the Teacher Corps, we are trying to train teachers for the culturally and socially deprived children, and the program tried to put together the local schools and the higher education community and not leave the training of teachers entirely to this——

Dr. **Morrissey**. I would say that any program that leaves the allocation of funds for training of teachers in vocational education in the State boards of education is too narrow, it does not reflect the complexity or the richness of educational opportunities.

Mr. **Quie**. They do not engage in the training themselves, but merely make money available to colleges. Is that true?

Dr. **Morrissey**. They would have to contract in some way.

Mr. **Quie**. You are saying they have too many strings attached?

Dr. **Morrissey**. Yes. I would be quite reluctant to have a State board of education prescribe a program of technical education in my college.

Mr. **Quie**. This is the way the Smith-Hughes Act and the Vocational Act of 1963, allocated its money.

Dr. **Morrissey**. Yes.

Mr. **Quie**. What are some of the experiences you have had, and what kind of restrictions are they placing against the flexibility of the institutions?

Dr. **Morrissey**. Well, for one thing, State board requirement would normally be excessive to myself and my colleagues. Having some courses in this type of thing is perfectly satisfactory, but to pile up these credits ad nauseam is silly. It is wasting academic time.

There is a fundamental difference of opinion how this could be done. It is not new to American society at all.

Mr. **Quie**. There is also a difference in view in junior colleges and vocational training; is there not? Is there not an animosity between the groups?

Dr. MORRISSEY. Yes; the vocational education people have done a good job against odds, decade after decade, and suddenly a breakthrough has come, and the idea has come to them that because the money is going into post high school, they might just as well get into that and gobble it up. That is the issue——

Mr. QUIE. What is your experience in the area of vocational schools?

Dr. MORRISSEY. Very poor in Massachusetts, and very excellent in Allegheny County. It is working very well there. That comes from a strong county superintendent of schools, and a very able city superintendent of schools.

In Massachusetts, it is a jungle. They are creating common things less than 10 miles apart. It is a horror.

Mr. QUIE. I know a Mr. Lerman at St. Bernard, who runs an MDTA program——

Dr. MORRISSEY. Mr. Lerman is a friend of mine. His son was a student of mine at Brandeis University. I am quite familiar with that. It seems to be working well.

Mr. QUIE. Would you be critical, even though they have a superlative technical school?

Dr. MORRISSEY. They do, and they have the means of working out the animosity between the levels of education, I agree.

Mr. QUIE. That is all.

Mr. PUCINSKI. Thank you very much, Dr. Morrissey, for coming here and joining with us. I am sure we have many more questions we would like to ask you, but our time is short.

Thank you very much.

Mr. PUCINSKI. Our next witness is Dr. Jacob Fishman, Director of Youth Studies, Howard University.

Mr. SCHEUER. I wish I could claim Dr. Fishman as a constituent of mine. I cannot. He is a distinguished member of a national constituency involved on the highest professional level of getting kids out of poverty and into productive life, adults as well as children.

Dr. Fishman is director of the university studies at Howard University, and in addition to that, he serves as a consultant to the Office of Economic Opportunity, and he has a contract with them to advise local agencies all over the United States to formulate programs for subprofessional training.

We are glad to have you here, Dr. Fishman. Your prepared statement will be printed in its entirety into record at this point, and you can elaborate on it, as a point of departure, summarize it, or give us any other thoughts you would like to add to that.

STATEMENT OF DR. JACOB R. FISHMAN, M.D., DIRECTOR, INSTITUTE FOR YOUTH STUDIES AND CENTER FOR MENTAL HEALTH, HOWARD UNIVERSITY

Dr. FISHMAN. Thank you, Mr. Scheuer. Since I am a resident of Washington, I wish I had a Congressman from my constituency.

Mr. SCHEUER. I think someday we will probably give you one.

(Dr. Fishman's prepared statement follows:)

STATEMENT BY JACOB R. FISHMAN, M.D., DIRECTOR, INSTITUTE FOR YOUTH STUDIES AND CENTER FOR MENTAL HEALTH, HOWARD UNIVERSITY

A. A major need and opportunity for vocational training today is in the area of human services which covers such fields as health, education, social service, recreation, child care and law enforcement.

The need is created by the particularly expanding fields of human service and the increasing shortage of trained personnel in these fields.

B. Vocational education has generally neglected these areas and confined itself largely to manual and technical skills outside of these areas. Too frequently vocational education on the secondary school level is directed at skills for which there is little market, no future for career development and outside the main stream of educational advances and the needs of the individual for successful economic and social functioning in the community.

C. Extremely valuable opportunity exists to develop combined work—education programs and ladders preparing young people for jobs and careers on subprofessional levels in the human services. This includes programs within the secondary school leading to general diplomas, education for school dropouts leading to high school certificate, community and junior college level training, and on in many cases to baccalaureate level training in colleges and universities. Sequences of training such as these should be integrated with supervised, accredited and compensated on-the-job training in the various fields of human service. Thus, part of the week is spent in classroom work of a general nature, part in classroom work oriented to college and skill training in a general field of human services and part of the week in on-the-job training which is accredited through the educational institution toward a certificate, diploma or degree.

D. In several years of experimentation with such training programs at Howard University Institute for Youth Studies and in other research centers in various parts of the country, it has been found that this approach is highly successful in: (a) training otherwise disadvantaged and unsuccessful school dropouts and other youth for jobs and careers in the human services; (b) meeting needs for skilled personnel in these fields in the community; (c) motivating and improving the general social behavior, and educational level of the participants to a greater degree than ordinary vocational training; (d) developing combined programs of education and training involving the local school system and various competitive human service agency employers such as Health Department, School System, Welfare Department.

Two brief examples of this kind of program follow:

(a) A group of 150 17–21 year old youth who are school dropouts or unemployed, with multi-problem backgrounds, were trained and employed in the human services including mental health, education, welfare and child care. Students were assisted in working toward high school equivalency and increasing their general knowledge and skills.

(b) A program was developed at Cardozo High School for similar students which combined human service training with the irregular curriculum leading toward both a diploma and certificate of training. Part of the day was spent in classroom work, part of the day in supervised on-the-job training in local human service agencies. Training stipends were paid for the latter. Students were selected from the bottom of the class. On graduation, these students will fill jobs in these local agencies or go on to higher education such as community college or college, or combination of both. Half these students spent their on-the-job training as classroom aides in elementary schools and half as health aides in local health facilities.

Both these programs emphasize learning through doing, are careers with a future in an area that is personally motivating and meaningful rather than dead-end and menial.

I would strongly recommend the development of pilot programs of this kind through school or educational institutions in combination with human service agencies in the community. I would urge that these programs develop: (a) linkages with human service agencies for the purpose of job development and on-the-job training accredited by the educational institution and (b) vertical linkages for training ladders in which through a combination of compensated work, training and motivation, a young person can move through a secondary school program on to a junior or community college program and for some, on to baccalaureate. A few will have motivation, interest and ability to move even further. For the others, this will vastly increase their vocational achievement and contribution to urgent community need, at the same time providing them with opportunities which they did not before have.

Dr. FISHMAN. I would like to mention briefly some general criticisms of vocational education in this country today.

For one thing, vocational education generally does not address itself to the issue of career development and advancement to different levels. For another thing, the heavy emphasis of vocational education is on the manual and technical arts and does not meet the expanding needs of the human service fields.

Mr. SCHEUER. Do you mean public service?

Dr. FISHMAN. Public service and human service synonymously, so that in the face of the expanding need for personnel in health, education, welfare, law enforcement, child care and the like, vocational education is not responding. A response to this need could, by the way, offer an unusual and important opportunity for training and employment for the less-advantaged members of the population.

Another problem of vocational education is that it is generally out of the mainstream of education in our communities, and all too frequently considered a kind of second-class or inferior grade of education for those who are unable to undertake general education or college-oriented education. In fact, in most educational institutions in this country the emphasis is on college and not on the enormous need for individuals in these communities to have vocational opportunity at levels lower than college.

Another problem of vocational education has to do with the lack of linkages for upward mobility. Once you have gotten that education, you cannot move onto other levels. Upward mobility is not in either our job structure or in our educational structure.

Secondly, at higher levels of so-called vocational education you cannot get into junior colleges, or community colleges, unless you have an academic background of a certain standard, which means people are eliminated from the bottom, and people are eliminated from the top.

I suspect that one of the reasons for this is that vocational education is generally regarded as a necessary but unfortunate addendum to the general model of education, which is usually geared to the middle class, upwardly mobile youth or adult who ultimately seeks a college education and considers anything else inferior. This is an unfortunate philosophy that pervades the function and structure of education generally.

One answer to this which we have developed in a number of experimental programs is called Training for New Careers in Human Services. In this we are developing training integrated into the educational institutions of the community as well as the human service or public service employing agencies of the community. The training is oriented to the needs of the high school student and also the dropout, who requires entry training in employment, and also a mobile ladder or latticework through which he can continue his training to different levels. For example, the trainee could go from high school on to community college or junior college and potentially from there to the baccalaureate level, in which the education is combined with work training with compensation, particularly for the on-the-job training segment.

In other words, a youth who dropped out of high school because he was not getting any training relevant to a job, or relevant to what he can see as the needs for himself and his family in the community, could enter high school in a human service training program, spending part of the day in classroom work of a general nature, part of the day in classroom work oriented to human service skills, such as child care, and part of the day in on-the-job training.

He could finish his high school with a general diploma, not a vocational diploma, and also a certificate of human service training. On this basis he could go to work full time in a human service agency, or get additional training in human services at a junior college or community college. An integral part of the college program is the on-the-job training component for which he is also—and this is critical—for which he is also receiving compensation and credit toward his training certification at this level, which is the junior college or community college level.

This ladder, hopefully, could reach, for some, to the baccalaureate level and for others with the necessary motivation and ability, to entry approval levels of health, nursing, medicine, and so forth.

In effect, we are suggesting the development of a pathway for vocational education that has the same value, credentials, and status as does the general education that we referred to today, but in addition provides the opportunity for accredited, compensated work training during the time in which the person is receiving his education at various levels.

In fact, this is not a very new concept. We have the same thing going on at the professional level in most human service professions. A teacher becomes a teacher intern and receives pay during that period, and credit for it. The same is true for a medical intern, a student nurse, a psychology intern, or a social work student in field placement, so it is really not such a new model, but it is a model which has not been allowed to extend down to the subprofessional levels and made an integral part of our vocational education system.

Two extremely important components of this kind of model in the human services are No. 1, linkages between the community educational institution and the public service agency which is doing both the on-the-job training field placement and between the institution and the potential employee. These linkages involve having personnel and the agency itself accredited by the educational institution for the on-the-job training and the field placement, and also involving it in job structuring and restructuring so that this latticework of subprofessional employment can be institutionalized in the human service agency.

The second important factor involves vertical linking. In other words, the qualifications, admission standards, and programs of training between the high school with such a program, the community college or the junior college, and the baccalaureate level, have to be structured so that they do not lock people out at the bottom, as is done today. This would enable people who do not have the usual academic qualifications but instead have a combination of experience and training with the appropriate certification to be admitted freely to the next level of training rather than being excluded.

An example of this system would be a nursing assistant who could without enormous difficulty and loss of income go back and take this kind of training program to become a practical nurse, and the program cast nurse who can move up to being a registered nurse. Today, the only way these people could advance is to go back and get an entirely new set of certifications, take time off from work for a long training period in which there is frequently a great deal of duplication of training which they have already received.

Theoretically, it also involves introducing into our basic concept of training in these fields the idea that certain kinds of work experience and supervised on-the-job training is perfectly respectable and acceptable, in fact perhaps even more effective than some of the additional techniques of classroom training that are generally employed today.

The schools which have approved the program have demonstrated increased interest in this approach of training, because they believe it is more effective than the archaic approach, and yet on the lower level we still use the archaic approach, which is uninteresting and pushes people out.

I would urge the introduction of a program that involves the development of pilot projects in communities developing human service training both in the lateral and the vertical directions involving this basic linkage between the educational institution with its basic curriculum and its employment and on-the-job training programs in public service.

Mr. **Scheuer**. Can I ask you what you mean when you say both laterally and vertically?

Dr. **Fishman**. Laterally involves two aspects, two concepts: No. 1, that as one develops a hierarchy of training, one avoids from the very beginning locking a person into a narrow specialty, so that he can't move from one human service field into the other without repeating the whole process. In other words, a generic program of training in the human services would allow a person who was, for example, being trained as a health aide to take minimal retraining—because he has had this generic training—if he wanted to move into the field of child care or education.

Mr. **Scheuer**. Rather than retraining it is additional training?

Dr. **Fishman**. Yes.

Mr. **Scheuer**. You are saying that he ought to be able to build on what he already has?

Dr. **Fishman**. Right. We waste an enormous amount of time and manpower today when we develop our training processes in these different fields in a completely disparate, separate, and cryptic manner in which vocabulary, and so forth, are kept separate when in fact these fields involve a tremendous amount of duplication. The fields of health, law enforcement, and others overlap. One can use up enormous resources in retraining.

Last, there is involved the necessity of having the secondary institution, the community college, work hand in hand with the public service agency, which is the employer and also takes part in the training process.

In Washington we have a program for high school seniors at Cardozo High School in which we have developed such linkages with the school system and the Health Department, in which the Health Department's on-the-job training and the school system's on-the-job training is linked with the accredited high school curriculum.

Mr. SCHEUER. Who would be carrying on this training, and how should it be effected?

Dr. FISHMAN. It is unfortunate in a way that the universities have not taken leadership in this, because in many ways they are in an advantageous position to develop these linkages.

Sooner or later, however, the legitimate or the institutionalized university educational system—that is, the high school, the community college, and the university—have to be linked together and take responsibility for developing these ladders.

It is not enough for a university or a community college or a high school to say, "All we are interested in is the diploma and the curriculum within our own walls." They must be concerned with the linkages to other institutions so that what we are doing dovetails. This is a very serious problem because each institution goes its own way and does not assume such responsibility.

Furthermore, the community agencies have to undertake the responsibility for training and career development together with these educational institutions. Otherwise, we are never going to solve the problem of human service manpower in this country.

Mr. SCHEUER. You are talking about the public service agencies. Are these agencies going to be the ultimate employers?

Dr. FISHMAN. Yes.

Mr. SCHEUER. Do they have a training linked with the educational institutions?

Dr. FISHMAN. They should, but frequently don't. The city hospital has an intern or nurse training program. The school system has a training program, the social agency has one but none of this is done at the lower levels.

Mr. SCHEUER. How soon can you begin this education?

Dr. FISHMAN. I think in the second year of secondary school. I don't think it is an advantage to anyone to separate vocational and academic education. It depresses aspirations and decreases motivation.

At the same time, I suggest to you that the general education high school, the general diploma high school can benefit greatly by introducing the concept of human training work-study in its own diploma programs, not just for the disadvantaged, but for all students.

Mr. SCHEUER. What is the relationship of this kind of vocational education for public service to others in the general academic high school? What would its relationship be, for example, to the junior college, to the full 4-year college, to the other kinds of higher schools, and programs, other kinds of vocational schools?

Dr. FISHMAN. Well, I think that the best place to do this is in the general high school, and not in separate vocational schools. I believe that the program developed in these general secondary schools should result in certification and diploma based on the combination of experience and education that would be acceptable to the local community college and junior college. The program offered by the local community college would represent a very smoothly fitted transition from secondary school level to community college level, and the same between community college and baccalaureate program, and hopefully between the baccalaureate program and approval training. This would enable a student to move up the ladder as far as his ability and his motivation will take him, getting around the discontinuous system that we now have where in order to do that and work at the same time you have to begin all over again.

Mr. **Scheuer**. Would this require certification standards and admission standards at various levels?

Dr. **Fishman**. It would mean that the institutions at various levels would have to change their admission standards considerably. At the present this is an enormous block to any kind of vocational training. They would have to include experience and supervised work training, and accept the idea that the only criterion for admission is a certain piece of paper which may or may not represent competence, experience, or potential.

Mr. **Scheuer**. Do you think you will run into problems because of the fact that these may be subjective criteria and not criteria that can be reduced to fine print, and coding?

Dr. **Fishman**. I think the problems will be mostly in the minds of the people running the programs. We have found that we can very successfully tailor training to people's needs, rather than trying to force people to meet the criteria, frequently archaic, of training programs which are based on little more than tradition, rather than an intelligent understanding of the needs of people and jobs.

Mr. **Scheuer**. What would your reaction be to an amendment to the bill which we are now considering which would provide a research and experimental program to, first of all, identify new careers in human service. You mentioned a good number of them, and perhaps there are others in such fields of mental health, physical health, crime prevention, and municipal services is a very important field.

Dr. **Fishman**. Yes.

Mr. **Scheuer**. And secondly to demonstrate approved methods of securing the cooperation of both the public agencies and the private sector, too, where there is a great potential of training, and finally programs of analyses as they are affecting both in providing new careers for people who really wish to get on the ladder and up the ladder, and also the extent to which they approve the quality of these public services.

Dr. **Fishman**. I would be heavily in favor of it, and I would recommend the consideration of an additional approach involving the support and encouragement in professional training of the training of professionals to effectively supervise, work with, and train people at the various levels below. This is generally heavily neglected in approval training.

Mr. **Scheuer**. Has your experience been that it is an indispensable concomitant for a person who has been associated with the professional, who have had experience in career aides——

Dr. **Fishman**. Yes. Sometimes there is misunderstanding as well as intolerance. However, we find that with orientation and training of the professional, they usually enhance their own ability in general program function, and more effectively utilize the subprofessional. I think it is an extremely important aspect of it.

Mr. **Scheuer**. What is this word "linkage"? Can you give us a definition?

Dr. Fishman. Providing and facilitating a smooth transition.

Mr. Scheuer. Thank you very much for your stimulating testimony.

Mr. Pucinski. Mr. Ford?

Mr. Ford. Thank you, Mr. Chairman.

I can well understand Mr. Scheuer's attempting to go into this in some detail with you because he has been sponsoring legislation to broaden in other ways our participation with Federal dollars in training programs of the kind of people, the shutout that you mention in the opening parts of your statement. However, there is another aspect of this that we have become more and more aware of and that is, the reluctance of the various professions to train these people to work who have nonprofessional backgrounds, while we are reading, in every possible place in the country, of the tremendous strain being put on the resources by medicare.

In our State we find laboratories who do not have a Ph. D or M.D. in charge which cannot be used for tests under medicare, because your colleagues have been convinced that if they get a doctor and put his name on the door, this will increase the effectiveness of the laboratory.

This is typical of the type of thing that, as a lawyer, I have seen my colleagues in the medical profession jump to without thought.

We in Michigan are regulating people who make eyeglasses in a way they were not regulated before. When people get licensing clauses they forever more make it difficult for anyone else to get into the business, so we have the people who are most concerned with the shortages doing everything possible to overcertificate.

How do we get around the problem of trying to train a person who is a high school dropout to become, for example, a medical aide without having these strictures put up that require him to make up for the magical 2 years of high school that he missed?

We saw examples in the poverty program in Florida of young ladies who were mothers of illegitimate children who had been recruited in a training program that made them very skillful in interviewing women in similar situations. They could in fact, get more information for a history than some of the more formally trained people.

But as soon as that program started to grow, there was a reaction. As long as they were not noticed, nothing was wrong. But the question arose, and we saw this program bump its nose against the glass. I don't know what has happened on it. I haven't had a chance to see anything on it in the last year, but it was in trouble the last time we saw it.

What do you see as a possibility of getting around this tremendous wedding we have with the idea of certificate, or basic requirements, or this sort of thing, that professional people most frequently push?

Dr. Fishman. You are asking the key question in this. The problem is not so much the certificate; it is what the certificate represents in terms of inclusion. Certificates are excellent things if they are realistic, and if they don't keep people out, but provide steppingstones for people from one level to the next.

But as you state so well, certificates these days are used to exclude, initially with the grandfather clause.

There are a number of ways in which one can deal with this problem. For one thing, one has to go through a fairly careful job reengineering and restructuring, so that the responsibilities and tasks of the nonprofessional at different levels are clearly spelled out in such a way that it is understood that they are not taking the place of professionals, but rather doing tasks that the professional is overtrained for. The professional remains in a supervisory position.

Essentially, the fears expressed by the professionals have to do with their own sense of economic security. They are afraid people are talking about nonprofessionals taking the place of professionals and doing the same things they do and have been trained for over the years.

The reality is that many things the professionals are trained to do could be done by people with a good deal less training. Thus, the professional could have his training reserved for the more specialized tasks. One issue has got to do with selling the professional that we are not talking about replacing him, but trying to supervise people to do the part of his task which he is overtrained for. We are, in fact, enhancing his role and are not trying to take away his job.

This becomes a problem with those professions who are borderline in salary and certification. You meet resistance from teachers and nurses. They are the two professions most underpaid and most concerned about certification.

Part of the process of developing career ladders has to be to help these groups to upgrade their salaries, because these days teachers and nurses are paid little more than nonprofessionals.

Another approach to this, a very important one, has to do with the enlisting of the professional in the training and supervision of the nonprofessional. We found that if you do this in a careful and considered way, you can usually convert the professional into a supporter of the program. The doctors become most concerned when you begin to talk about health practitioners, at less than the M.D. level, functioning apart from the doctor's supervision. The same is true of the teacher and the social worker. Reinforcing their jobs decreases the resistance.

Mr. Ford. In leading a trainee into training as a subprofessional, after a period they become very adept at the duties assigned to them. They are constantly learning not only those specific duties, but noting the kinds of things people are doing around them. Sooner or later they realize they are as capable of doing the job at the level above them as the person who has come into it with a college degree. But when they try to move up the ladder, they find a step is missing that was missing on the 10th grade level—what do we do there?

Dr. Fishman. That is why I stressed certification.

Mr. Ford. You would substitute an achievement test coupled with work experience for the orthodox education?

Dr. Fishman. Yes, with accreditation, so that the certification is the same for both.

I think you are quite right. If you don't have the opportunities for upward mobility for people who are learning more skills, you are selling them short, and maybe you are worse off because they are made to feel frustrated.

Mr. Pucinski. Mr. Hawkins.

Mr. Hawkins. I was interested in your provision which I considered to be a suggestion of an on-the-job training incorporating education.

In elaborating on that, would you state just where this training should begin? Among what groups, at what levels, for example, in the educational situation should this commence?

Dr. FISHMAN. I think it should be open to students entering secondary schools. They would be able to enter an educational sequence which involves combined work, education and training in which the direction, work, education and training included acknowledges the basic requirements for their diploma but also encompasses training and on-the-job compensated employment in the human services.

I would stress again, however, that it is extremely important to have the on-the-job training viewed as an integral part of the educational experience and accredited as a part of the educational experience, so that it is not regarded as stopgap part-time work that may be necessary to put money in the youth's pocket, but is unrelated to his basic educational experience, which remains inviolable. It has to be integrated.

There is no reason on earth why we have to continue the high school educational programs we have now based on classroom work which is irrelevant to the youth and does not include linkage to a job in the community. This is not a new concept. It has just been neglected.

Mr. HAWKINS. This would not encourage the students to take the training over the compensation? How could we avoid that danger? The other type of educational situation would have no return whatsoever.

Dr. FISHMAN. You would have some students going into it for that reason. I would suggest, however, that students who entered this model wouldn't lose anything in terms of the amount of education they would get, and that is the whole point of the thing. Students who elected this pathway would get this same quality, programs of a different kind, but the same quality of education that the others would if the thing is properly done. In addition I would submit that based on our experience they would have mobilized much more motivation for advancement and work and learning that they are doing than the students have in the traditional kind of educational track.

This is an interesting part of the model that is generally overlooked. Students in high school generally enjoy learning through doing more than sitting back listening to a teacher, and if in addition you are giving them practical work experience and that is compensated, you are increasing their motivation for advancement.

Remember that what I am suggesting is that the work training experience be accredited, that it be structured, have meaningful learning in it. The things that the student is learning as a health aid or an education aid for the elementary school system are just as fundamental and perhaps more so than the things he would have learned in a classroom setting. He can learn the mathematics and the algebra in the context of doing, because he is making out a report in a chemistry lab for a health agency. This is much more motivating. We found that youths who were dropouts, and didn't care, became extremely motivated when put into this kind of situation.

Mr. HAWKINS. Would these students also receive a high school certificate? Would this lead to the possibility of going ahead into junior college?

Dr. **Fishman**. Yes. The crux of the concept is that it should result in exactly the same high school diploma that any other student would get, in addition to which they would have the human service certificate. This should be linked to possibilities of further training and education and work experience on the junior college, or community college level, where the same conditions would prevail.

Mr. **Hawkins**. I wish to commend you on this. It is the best thing I have seen for the disadvantaged child who is today being denied a possibility of achieving development merely because of insufficient finances. I think it offers a great opportunity for this committee to explore.

Dr. **Fishman**. Mr. Congressman, I would like to slip in an addendum to that. This may be just as advantageous for the middle-class high school students, who would get more motivation out of it, than the way we operate high school today.

Mr. **Hawkins**. I agree, except the means, and the other can perhaps get the means, so that the possibility of developing it is present, and while I think that both might profit, I think that one needs a little extra push from us.

Dr. **Fishman**. I quite agree.

Mr. **Hawkins**. Thank you.

Mr. **Pucinski**. Dr. Fishman, I share in the congratulations my other colleagues have given you on the testimony here. You have certainly brought out some refined points, but I am not sure I understand this.

What is the difference between your on-the-job training proposal and our work study program? Why cannot we do what you are suggesting under existing work study program procedures?

Dr. **Fishman**. By the work study program you are referring, for example, to the Neighborhood Youth Corps?

Mr. **Pucinski**. No, in the Vocational Training Act of 1963, we have work-study programs for vocational education. They may not be funded the way they should be, but we have the organization. The bill specifically provides that the work study program—

> (1) Shall be administered by the local educational agency and made reasonably available (to the extent of available funds) to all youths in the area served by such agency who are able to meet the requirements of paragraph (2);
>
> (2) provide that employment under such work-study program shall be furnished only to a student who (A) has been accepted for enrollment as a full-time student in a vocational education program which meets the standards prescribed by the State board and the local educational agency for vocational education programs assisted under the preceding sections of this part, or in the case of a student already enrolled in such a program, is in good standing and in full-time attendance, (B) is in need of the earnings from such employment to commence or continue his vocational education program, and (C) is at least fifteen years of age and less than twenty-one years of age at the commencement of his employment, and is capable, in the opinion of the appropriate school authorities, of maintaining good standing in his vocational education program while employed under the work-study program; * * *.

Why cannot we take the existing legislation (and we are authorizing more funds for the work-study program in amendments before us now) and tie that whole package together and do what you suggest here?

Dr. **Fishman**. I don't think I could intelligently answer the question you are raising with regard to legislation because I am not familiar with the guidelines or the breadth of the legislative intent there.

I could respond this way: From the way the legislation sounds and the way it is being implemented, the work is not integrally related with the study.

Mr. **Pucinski**. But there should be nothing that precludes or prohibits the work being related to the study. I think that you will find that the reason the work is not related to the study is the very thing that Mr. Ford spoke about, the resistance to taking those on-the-job training people or work-study people, or whatever you want to call them, and integrating them into the normal work force in an on-the-job training program. And you are going to find this resistance, as you know—for instance, you stressed heavily the (as you call it) the human service, when you try and break through the bureaucracy of those agencies. They tolerate summer replacement students, and they love to have them because it helps them catch up on all their filing and everything, but let anybody suggest that this is going to be more permanent than the summer replacement and you would immediately see the resistance these people would put up about bringing someone out of the estabilshment into that particular job, so this is probably why they are not related.

If you can suggest to this committee how we can break through this traditional resistance to bypass the civil service structure and various other things that have been built into the Government establishment, I think you would have a tremendous suggestion.

Dr. **Fishman**. I think it can be done.

Mr. **Pucinski**. You are a great man.

Dr. **Fishman**. One thing I might say is that the legislation you read to me does not have, is mandatory conditions such as the ones you and I have described. It is much too broad, and so, it makes the resistances rampant and predominant. You cannot beat that kind of system unless you spell out the mandatory legislation on the resistances that you know are there.

The other thing that I would mention is that it obviously does not make mandatory the linking of work and study. It is suggested by implication, but it is far from mandatory. Thirdly, it doesn't focus on the human services and, generally speaking, the history of the vocational education in the communities doesn't go into that direction. They are more interested in training tailors where there are no tailor jobs, and so forth.

Mr. **Pucinski**. I think you were here when the gentleman from Ohio, I believe it was Mr. Shoemaker, took very strong exception to the statements you make and others have made, that you point out at least vocational education is neglected, and so forth.

The witness put into the record a long and impressive list of highly specialized skills that may not be in demand today, but a study shows that in a year from now will be in demand.

For instance, in atomic energy, in industries that have an atomic energy activity, they are training now young people to get into the field, and he took very strong exception to your position on this.

I am sorry that I don't have the statement with me here. He put in the record a table of job scales that the vocational training people are developing, to meet the thrust of his argument which was a very strong objection to the kind of statement you make here—although he wasn't referring to you, but someone else—I believe it was Congressman Steiger who asked him the more or less same question you raised here—and he became very incensed at that suggestion. He said, on the contrary, the vocational people are now getting into these very specialized, rare skills.

So I think that perhaps you will find the picture is not as bad as some think.

Dr. FISHMAN. Might I suggest to you, and I certainly have no objection, that maybe they are trying to approach this, but there are a lot of problems in the statements which you have paraphrased. For one thing, the very fact that he is talking about training for large numbers of specialized skills represents a fundamental fallacy as far as I can see.

Mr. PUCINSKI. I think you will find, though, that within the new concept progress has been made. You know, I am pursuing this object with you because I am wondering, with all due respect to your testimony, whether you, as one closely associated with the university, are really not in communication with what is really happening in vocational education, and whether you, as an educator in institutes of higher learning really haven't somewhat lost touch with the vocational education people. I am sorry that the witness is not here, because I would be willing to stay here for an extra half hour to let the two of you slug it out on whether or not there is any merit to your statement here that vocational education has generally neglected these areas and confined itself largely to manual and technical skills.

I am, for instance, reminded of a project that I helped organize in Chicago, by the Brunswick Corp., under a contract. We took over a wing of the old Marine Hospital, which has been vacated by the Public Health Service. We helped them get a wing of that hospital, and they are now training 200 young women in various fields of—I guess they call it paramedics, the various aides in cardiograph operation, and the blood tests and the various other specialties.

Now, here is a great need in the hospitals for these people, in laboratories. These young ladies are now being trained as part of the vocational education program, so I wonder if it is really fair to say this about vocational education people. But more important is the question I raise to you, and I wish that we had more people from the university level coming before us, if we had time.

I would like to see whether or not there is a possibility that we are not sufficiently aware that there is a communications gap between the institutions of higher learning and people who are trying to do the job at the vocational secondary level.

Dr. FISHMAN. I agree completely. There is an enormous communications gap, and universities are generally not interested. They run from it like the plague because they think it represents something less than higher education.

Mr. PUCINSKI. You were here when I told Dr. Morrissey that I was very much opposed at this time to putting the teacher training program in title V of the Higher Education Act.

I would feel a good deal safer leaving the title here in this legislation where we specifically earmark the money for vocational education, teachers, because I think there is the tendency by our communities and institutions of higher learning to sort of look down in self-disdain upon the vocational education of America.

I tell you emphatically that they had better wake up. We had testimony before this committee, and I am not going to dispute this testimony, that in 30 months, in 1970, there is going to be in excess of 9 million youngsters, one-half of the public school system of this country, going to be taking vocational education. So I think the higher education community had better start coming around to seeing that this field needs help.

Dr. **Fishman.** I would say you are absolutely right. It is much more than a tendency. Higher education has been rapidly isolating itself from community needs, not only in vocational education but across the board.

The approval schools in the universities, as a case in point—since we are talking about human services—have only with great reluctance and in scattered places begun to undertake training at the baccalaureate level in social work and health and education, and with even greater reluctance to explore the subbaccalaureate kind of training.

Isn't it fantastic that medical schools haven't taken the lead in allied manpower health training, and that the schools of social work have not taken the lead in training people at lower levels in community service?

Mr. **Pucinski.** What do you think is the explanation of that?

Dr. **Fishman.** Well, it has to do with a number of factors. One has to do with overprofessionalism and the other has to do with a financial protectiveness concerned with keeping the monopoly where it is, and the third has to do with misplaced and distorted intellectual snobbishness which says that certain kinds of things can only be learned by people who have gone through an elaborate process of training. Unfortunately, that process is often initial to the needs of the skills.

I think you have put your finger on it by asking what is the role of the university in this kind of activity. More than that, what is the role of the university not only in terms of vocational training, per se, but also in terms of an alliance with the agency representing the employers and the on-the-job trainers. At present, it is only at isolated points where the university becomes involved in analyzing and understanding what the manpower needs of these agencies are.

We still, in our universities, train for certification of traditional standards rather than for the needs of the manpower market, which is a curious kind of market. It means we are more concerned with what an A.B. degree means, per se, even if that meaning is archaic to the needs of the individual, than we are with what the manpower resources, the employment and career advancement is in the community.

Education should be geared to community needs, and not to what the universities are producing based on their traditional standards.

Mr. **Pucinski.** I am sure you have made a significant contribution here today in calling our attention to this field, and the vast opportunities that are inherent in it.

We are very grateful to you for spending your time, and I want to apologize to you for keeping you so late.

Thank you very much.

Dr. **Fishman.** It was my pleasure.

Mr. **Pucinski.** The committee will stand adjourned until Monday at 9:40, when we will resume.

(Whereupon, at 5 p.m., the hearing was recessed, to be reconvened at 9:40 a.m., Monday, April 17, 1967.)

VOCATIONAL EDUCATION IMPROVEMENT ACT AMENDMENTS OF 1967

MONDAY, APRIL 17, 1967

House of Representatives,
General Subcommittee on Education of the
Committee on Education and Labor,
Washington, D.C.

The subcommittee met at 10:10 a.m., pursuant to recess, in room 2175, Rayburn House Office Building, Hon. Augustus F. Hawkins presiding.

Present: Representatives Pucinski, Meeds, O'Hara, and Scherle.

Staff present: Margaret Sugg, director, and Mattie Maynard, clerk.

Mr. **Hawkins**. The General Subcommittee on Education of the Committee on Education and Labor of the U.S. House of Representatives is now in session.

Inasmuch as the chairman of the subcommittee, Mr. Pucinski, has been delayed and will be here shortly, I was asked to go ahead with the hearing, because we do have a full hearing scheduled today with many witnesses.

At this time it is an honor for me to welcome our distinguished colleague from Montana, Congressman Olsen, whom I assume will tell us about Montana and some of the facilities that are in that State and also it is my understanding he is accompanied by Dr. Mervin K. Strickler.

Congressman Olsen, it is a pleasure to welcome you to the hearing this morning. You may proceed to handle your witnesses and your presentation as you see fit. If you have a written statement and would like to introduce it for the record, we will be very glad to receive it.

STATEMENT OF HON. ARNOLD OLSEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MONTANA

Mr. **Olsen**. Thank you very much, Chairman Hawkins. I do have a prepared statement that I would like to read.

I am accompanied here by a member of my own staff, Milan Boryan, and members of the staff of Senator Mansfield and Senator Metcalf. From Senator Mansfield's office there is Ted Roe and from Senator Metcalf's office is Bill Huber.

As I will relate later again, Dr. Strickler is also connected with Senator Metcalf's office.

Mr. **Hawkins**. I predicted he would be here, didn't I?

Mr. **Olsen**. Yes; you did, and I will forego my statement and wait for Mr. Pucinski to open the hearing with his statement.

Mr. **Pucinski** (presiding). Off the record.

(Discussion off the record.)

Mr. PUCINSKI. On the record.

I would welcome our colleague, Congressman Olsen, and his panel here this morning to testify on this very important legislation. We know of your great interest in this field, the great contributions you have made, and we are delighted to have you here this morning.

You may proceed in any way you wish.

Mr. OLSEN. Thank you very much.

Mr. Chairman, it is a pleasure to be here to share with you and your colleagues some information, ideas, and resources that hold promise for helping meet important national needs in the field of education in general and vocational-technical education and skill training in particular.

I have followed the proceedings of your committee with great interest and welcome this opportunity to demonstrate Montana's willingness to help meet what to me is one of our Nation's greatest challenges in the field of education. We have, in fact, in Montana a potentially valuable resource that we would like to bring to the attention of this committee.

In essence, what I would like to do is stimulate your thinking about the needs for and location of what we have been considering; namely, the establishment of a National Center for Human Resources and Development—a comprehensive occupational education facility.

I have long been aware of and deeply concerned with the need for improving all forms of education and especially vocational-technical education. While I was attorney general of Montana, I served as a member of the State board of education. Also, I was a member of the State congress on school financing. These positions and experiences, as well as my service in Congress, have underscored for me the tremendous strides we need to make, as a nation, in all phases of education and particularly in vocational and technical education.

Senator Lee Metcalf, the junior Senator from Montana, had planned to be here with me today to discuss our ideas with your committee. However, as he said over the weekend, "I regret that I am confined to quarters by doctor's orders."

As many of you know, Senator Metcalf is referred to by Senator Wayne Morse, of Oregon, chairman of the Senate Education Subcommittee, as Mr. Education. As you know, when Senator Metcalf was a Member of the House of Representatives, he served on the Education and Labor Committee and on this subcommittee.

Like all of us here today, Senator Metcalf believes that the solid base of democracy is education. As he has said:

> . . . one of our major problems is helping the eight of every ten youngsters who do not go on to college to equip themselves with the knowledge and skills they need to find worthwhile work in a society changed and changing by developments in science, automation and technology, thus becoming useful, productive members of their communities.

Toward this end, he has worked tirelessly for improvement in federally aided vocational education programs.

I would like to share with you a letter sent last week to the Honorable Harold Howe II, Commissioner of Education. This letter, dated April 12, 1967, is a part of my statement and I ask that it be made a part of the record at this time. It is signed jointly by Senators Mansfield and Metcalf. And then I will proceed to introduce the other men here.

Mr. PUCINSKI. Without objection, we will make this a part of the testimony at this point. It is so ordered.

(The letter referred to follows:)

UNITED STATES SENATE,
OFFICE OF THE MAJORITY LEADER,
Washington, D.C., April 12, 1967.

Hon. HAROLD HOWE II,
Commissioner of Education,
Office of Education,
Department of Health, Education, and Welfare,
Washington, D.C.

DEAR COMMISSIONER HOWE: We are very much concerned with finding realistic possible educational uses for Glasgow Air Force Base located in northeastern Montana. The base is scheduled to be closed as a Department of Defense facility 30 June 1968.

Members of our staff have been working with your associates in developing a variety of possible uses for this one-hundred million dollar facility which includes a total community of homes, dormitories, shops, potential industrial sites, a hospital, schools and other facilities. All of these resources have been built within the last ten years.

Because of the magnitude of Glasgow Air Force Base, and in view of many urgent national needs, we are most interested in developing uses that will serve national programs. The facility is simply too big for the local community, the county or the state.

We urge you and your associates to give priority attention to identifying those Glasgow Air Force Base resources that will help to solve national problems relating to education. For example, we do not believe that the customary system of surplus and excess property disposal at bases such as this will be effective with Glasgow. Such disposal, could well lead to simple cannibalization of valuable resources and losses to the nation.

One of the most interesting ideas that has recently emerged came from members of your staff who are working with us in developing possible suitable uses for the base. Specifically, we refer to the splendid initiative and imaginative efforts of Dr. R. Louis Bright, Mr. Walter Mylecraine, Dr. Grant Venn and his staff members Mr. Michael Russo, Mr. Herman S. Mandell and Mr. Edwin Crawford.

Discussions with your staff have helped identify the need for the establishment of a National Center for Human Resources Development—A Comprehensive Occupational Education Facility. We would encourage the most effective and earliest possible planning along these lines. For this type use of Glasgow Air Force Base, you may count on the fullest possible support of our offices in helping make this concept a reality.

As you know, we are both basically conservationists. With the help of you and your staff, we believe that some wise and innovative uses of Glasgow Air Force Base can be developed in ways which will be of benefit to the entire nation.

We realize that more needs to be done in our country to experiment and do testing and demonstration work in a variety of vocational-technical-occupational and related skill training areas. Glasgow may well help do this. We recognize that there is much that yet needs to be learned in family rehabilitation and adult training and re-training. Glasgow's resources seem well suited to this.

Please be asusred of our deep interest in finding ways to match some of your program needs with national goals and the unusual complex of facilities at Glasgow Air Force Base. We will welcome your candid and constructive advice and assistance on the best possible ways of utilizing this fine resource.

Very truly yours,

MIKE MANSFIELD, U.S.S.
LEE METCALF, U.S.S.

Mr. OLSEN. Currently working with Senators Mansfield and Metcalf and the Montana congressional delegation is Dr. Mervin K. Strickler, Jr., who will give you a short description of what we believe is a unique opportunity for the entire Nation.

Dr. Strickler is eminently well qualified for this assignment today. He is nationally known for his work in a variety of fields in education and aviation. He has had experience in vocational-technical education, both in Government and private industry. He is currently on leave from his position as Special Assistant for Aviation Education, Federal Aviation Administration, serving as an American Political Science Association congressional fellow assigned to Senator Metcalf. In this capacity, he is serving as a full-time consultant to our delegation in heping determine the best possible uses for Glasgow Air Force Base.

Dr. Strickler will show you excerpts from a color slide presentation he has developed to help all of us find realistic uses for Glasgow Air Force Base. I believe that this presentation has in it many items of primary interest to this committee. Either during or after his brief presentation, Dr. Strickler will be happy to answer any questions you gentlemen may have.

As you watch this presentation, I would ask each of my distinguished colleagues to ask yourself this question: Can we marshal these resources in ways that will help the Nation upgrade the skills, training, and outlook of many of our citizens, both young and old?

I want to repeat for the record that from Senator's Mansfield's office we have Mr. Ted Roe, and from Senator Metcalf's office we have Mr. Bill Huber and I want to emphasize that because it shows a demonstration of solid support for this project.

I will take the liberty also for speaking for our other colleague in the House, Representative Jim Battin of Montana. He is in this joint effort as well and would have been here this morning had we been able to give him better notice, but I am sure that he will have testimony for your record and I ask that it be kept open for testimony from Congressman Jim Battin.

Mr. PUCINSKI. Fine.

Congressman, if you will just proceed with the slides and then for the purpose of the record if whoever is going to handle this, Dr. Strickler, if you will just briefly explain these slides for the record, it will show continuity.

I don't think we really need to turn off the lights. I think we will be able to see this without turning off the lights.

Dr. STRICKLER. Mr. Chairman, we checked this out just before the meeting. You will get a little better view if the lights are down with the night lights on, if you don't object. Would that be all right, sir?

Mr. SCHERLE. Mr. Chairman, if I might have a minute. I would like to apologize to my colleague, but I have another meeting at 10 o'clock. I know telling you what I am mentioning now you well understand, but before I leave I want you to know I have always been a firm advocate of vocational education. We have a new program in Iowa. I realize the void that has been created there through the many years and I guarantee you that any consideration we have in the field of vocational education I hope I can play a part in.

Mr. PUCINSKI. Thank you, Mr. Scherle.

Mr. SCHERLE. Thank you.

Dr. STRICKLER. Can you see that satisfactorily, Mr. Chairman?

Mr. PUCINSKI. Yes.

(The slides referred to appear in the committee files.)

Dr. **STRICKLER.** Glasgow Air Force Base is located 18 miles north of the city of Glasgow, Mont., in the northeast corner of the State, near the borders of western North Dakota and southern Canada. Thirty miles south of the city of Glasgow is the Fort Peck Reservoir, created by the dam on the Missouri River. The Fort Peck Indian Reservation is nearby. (Slide.)

The city of Glasgow is located on a nationwide network of railroads, highways, and airways. It is a shopping, service, and transportation center for the surrounding agricultural area. (Slide.)

As this aerial view shows, the city of Glasgow is geographically typical of the northern Great Plains. Glasgow has a population of nearly 6,000 (Slide.)

Glasgow Air Force Base is modern, well equipped, and one of the newest in the Department of Defense inventory. It has been built within the last 10 years. (Slide.)

The taxpayers of the Nation have already invested more than $100 million in Glasgow Air Force Base. (Slide.)

Other military bases have been successfully converted to nondefense purposes. The conversion of those bases to civilian use resulted largely from local initiative and resources. (Slide.)

In Montana, the assessable tax base at local, county, and State levels combined with other economic and related considerations make it impossible to handle the conversion of Glasgow Air Force Base in the traditional manner. (Slide.)

Thus, Glasgow Air Force Base resources need to be related to regional and national needs. Specifically, it has potential in rehabilitation, education, training, health, aviation, industrial development, and related fields. (Slide.)

The natural resources of the area relate primarily to agriculture and recreation. (Slide.)

An aerial view of just a portion of the fine housing at Glasgow Air Force Base helps one become aware of the magnitude of the valuable resources there. (Slide.)

A variety of fine housing has potential for a community of nearly 10,000 people. Dormitories can house over 2,000 with others housed in fine single, duplex, triplex, and quadruplex homes. (Slide.)

Dormitory facilities are modern, comfortable, and the envy of many college and university students. (Slide.)

Double rooms like this (slide), and this (slide) are joined with shower and toilet facilities between them.

There are excellent facilities for dining, and training food service personnel. (Slide.)

And recreation—both for relaxation and training workers for careers in the growing field of recreation. (Slide.)

Family housing ranges from excellent single family homes, like this (slide) and like this. (Slide.)

To duplex (slide), triplex (slide), quadruplex—houses of a modern and permanent type.

A new 50-bed hospital and a 10-chair dental clinic provide excellent medical facilities. (Slide.)

The hospital is housed in this modern building and includes the latest X-ray equipment (slides) along with full diagnostic and laboratory facilities. (Slide.)

The dental clinic is equally modern and well equipped. (Slide.)

Two elementary schools and a junior high school accommodate nearly 1,000 pupils. (Slide.) In a setting like this. (Slide.) At the present time, high school students are transported by bus to the city of Glasgow. (Slide.)

This new headquarters building could provide a combination of offices, classrooms, laboratories. (Slide.)

A newly designed, efficient, central heating plant supplies heat and it could be used for training stationary engineers. (Slide.)

The water system taps the nearby Fort Peck Reservoir for a 3-million-gallon-per day supply of the finest possible water, either for drinking or industrial use. (Slide.)

The Fort Peck Dam on the Missouri River, the largest earthen dam in the world, provides water—and boating, fishing, recreation, geological and related activities, along with many study and career training opportunities. (Slide.)

This modern water plant which controls and purifies the water for the base can, like the heating plant, dining, recreation, and medical facilities, serve both its normal purposes and that of training workers. (Slide.)

The annual operating expenses for heat, water and electricity are under one-half million dollars per year if all the base facilities are used. (Slide.)

However, the utility system is designed in such a way that the utilities can be channeled as needed to those areas of the complex requiring service.

Essentially, there are no problems insofar as communications, power and transportation are concerned, for those who might make use of Glasgow Air Force Base. (Slide.)

According to Air Force experience and available weather data, Glasgow Air Force Base has more favorable flying weather than most airports in the United States. According to the most recent Federal Aviation Administration report: the weather does not adversely affect the flying conditions at Glasgow Air Force Base. Records establish that contact flying conditions exist 94.7 percent of the time. Instrument flying is experienced only 3.0 of the time. The field is closed only 2.3 percent of the time. Winds over 40 knots occur only 0.2 percent of the time. More available flying days in uncongested airspace is a genuine asset for air transportation of people and cargo, as well as for aviation training. (Slide.)

There is snow in the winter. However, as this 1967 mid-February scene shows, there are only a few inches on the ground. Annual precipitation fall in the area averages 13 inches per year. Also, summer and winter, relative humidity stays quite low. (Slide.)

Glasgow Air Force Base has many obvious advantages. How to make use of these advantages in the best way, will come from (slide) representatives of education, industry, and government meeting to pull together ideas and resources to serve mutual goals. (Slide.)

If such a meeting were held at Glasgow Air Force Base, it could be in one of many fine conference rooms, such as this. (Slide.)

Or in a lounge of this type (slide), which is just one of many on the base.

The basic question is how to use the existing modern facilities to meet recognized needs. One suggested use that would save an estimated one-half million dollars is being explored by local, State, and Federal officials who are discussing using the 13,500-foot-long runway, or part of it, instead of expanding the fine smaller airport closer to the city. Decisions like this are not easy to make. If it is decided to use the Air Force base for civil aviation purposes. (Slide.)

Here are just a few of the modern ramp and hangar facilities (slide) along with the control tower and up-to-date navigational aids not shown. Here is a potential valuable civil aviation airport investment for the use of any aircraft now planned. It is one of the airports in the Nation that could now accommodate the supersonic transport. (Slide.)

In Texas, good use has been made of a former $41 million military base converted to the James Connally Technical Institute for training local and State students. This use grew from the initiative of local citizens, State legislators, the Governor, and Federal officials. Glasgow may well serve similar regional and national needs and programs. (Slide.)

(Article from Longview, Tex., Morning Journal follows:)

[From the Longview Morning Journal]

DIRECTOR OF TECHNICAL INSTITUTE MAN OF THE MONTH

East Texas businessmen will soon be recruiting highly skilled technicians from a comparatively new institute of higher learning, the James Connally Technical Institute in Waco. And when they do, they will certainly come in contact with Dr. Roy W. Dugger, institute director, Man of the Month in the January issue of "East Texas," official pubication of the East Texas Chamber of Commerce.

A vice president of Texas A&M University, Dr. Dugger speaks with authority in this field and he has said that this vocational skills development center will provide any program of training or retraining in which any business or industry in the state may be interested.

A graduate of Texas A&M with a bachelor of science degree, 1948, Dr. Dugger continued his studies there, receiving his master's degree in 1950. He completed his doctorate at the Oklahoma State University in 1956, but he has been—and probably will always be—a student. His major fields of study, for example, tend to confirm this evaluation. He has pursued studies in higher education, administration, agricultural engineering, electronics, as well as advanced technical training, and has taught at Oklahoma State University.

Dr. Dugger served as the first national director of manpower training in the United States Office of Education in 1962, and was appointed to the post of deputy assistant commissioner for vocational and technical education, United States Office of Education, in 1964, from which post he was named vice president of Texas A&M University and director of the James Connally Technical Institute.

While hundreds of young men are receiving training at the institute at present, projected figures call for facilities for 5,000 students by 1970, Dr. Dugger indicated, with 3,500 of these classified as full-time students.

The institute had an auspicious beginning. When classes convened in January 1960, Dr. Dugger expected a maximum of 20 students would enroll in the teaching of precision instrument measurements to quality control employees. The class enrolled 70 and had to be divided into two sections.

The James Connally Technical Institute was the brainchild of Governor John Connally, who saw in this 41-million-dollar air force base which was being abandoned, a natural "home" for such an institute which is today training men in various fields, including sewerage technology, refrigeration, maintenance technology, and many others so vital to a rapidly growing economy such as Texas is enjoying. And under Dr. Dugger's direction, its importance bids fair to increase at a rapid rate.

Manpower, career guidance and aviation experts agree that aviation offers many attractive jobs for trained youth. Aviation is a growth industry and career field. (Slide.)

Glasgow's resources are well suited for training aviation technicians needed throughout the world. (Slide.)

Modern, well-equipped shops, such as this, provide training potential for many career fields. (Slide.)

This type of training which can be done at Glasgow Air Force Base may lead to jobs such as:

Airline mechanics. (Slide.)

General aviation mechanics. (Slide.)

Instrument repair specialist. (Slide.)

Aircraft construction. (Slide.)

Work in new materials and processes, such as plastics. (Slide.)

Painting and finishing. (Slide.)

Air traffic control equipment repair. (Slide.)

And electronic troubleshooting offers many job opportunities. (Slide.)

The Nation's first and only Manpower Development and Training Act financed program for pilot training was very successfully done in Montana. Today, all of the graduates of this experimental program are working in well-paying jobs, such as flight instruction, flight engineer, agricultural pilot and airline pilot. (Slide.)

To qualify for this program, the participants had to be unemployed, but trainable. They attended ground school classes, like this and took flight training. (Slide.)

One of the graduates of this program, Larry Ashcraft of Helena, Mont., now earns nearly $15,000 a year ($14,700) flying as a copilot on a TWA jet. The average income of the formerly unemployed youth who went through this program is now over $8,000 per year, and steadily rising. In a few years, the participants will repay the Government, in income tax alone, more than the total per trainee cost of the program. (Slide.)

Health and medical manpower experts tell us there is a nationwide shortage of trained workers in the allied health professions: nurses, medical technologists, dental assistants, X-ray technicians, paramedical, subprofessional, and many other entry level career fields, for which Glasgow's resources can be used as they now exist or with minor modification. (Slide.)

There is a worldwide need for training doctors, nurses, and paramedical personnel in the medical team delivery of medical services in rural, remote, and emergency situations. Such training could economically and effectively use Glasgow's aviation, medical, and environmental resources. (Slide.)

Automatic data processing training and related job opportunities hold promise for the youth of the Nation who qualify. (Slide.)

Only those who are trained will be able to take advantage of automatic data processing oriented job opportunities. (Slide.)

A related career field is the growing area of international communications. Glasgow is geographically and otherwise well suited for such training. (Slide.)

More car owners and garage and equipment operators recognize the nationwide need for skilled, motivated, well-trained automobile mechanics. (Slide.)

Similar training is needed for farm implement repairmen and operators of heavy equipment such as this. The fire protection resources at Glasgow Air Force Base like the water, plumbing, heating, and medical, and recreational facilities can be used for their basic purposes as well as for training workers. (Slide.)

Aerospace industry experts estimate that one-quarter of a million jobs will be directly related to the development of America's supersonic transport. (Slide.)

This 1,800-mile-per-hour transport of the near future will require—(Slide.)

Draftsmen and engineers, as well as—(Slide.)

Construction workers needed throughout the aerospace industry. (Slide.)

With the large potential factory sites at Glasgow, subcontracting, like this—(slide), or

Other heavy industry or factory use, like this—(Slide.)

Can train and employ men and women, youth and adults.

Glasgow's more than 2 miles of runway fit the supersonic transport age. The runway and other necessary facilities exist now. Perhaps they can be used for training by those who purchase the British and French Concordi SST. (Slide.)

Or later for helping train our own supersonic transport crewmembers. The airport and its associated resources, away from heavily populated and heavily traveled airspace, lend themselves to jet and supersonic aviation use for training and air commerce. (Slide.)

Glasgow's inventory of over one-half million square feet of prime factory, warehouse, or training buildings fit the Nation's need for industry decentralization, for training workers, and for work-study programs. (Slide.)

This expensive completely equipped jet engine test cell is just one part of the valuable potential industrial or training complex. This can be used for testing, manufacturing, research, and training. (Slide.)

These fuel storage facilities provide potential aerospace or petroleum industry users with needed resources and training facilities. (Slide.)

President Johnson has asked the Nation to marshal all possible resources to help improve programs of education and health for America's children and youth. Glasgow has many things that can help in education, training, experimentation, and demonstration. (Slide.)

The President has asked for a continuation of the worldwide war on hunger. (Slide.)

Using Glasgow's natural environment, with jumbo jets now under construction, cost effectiveness studies encourage consideration of a worldwide food lift that can be efficient and helpful in attaining the humanitarian objectives of our Nation. (Slide.)

Some of these same resources may help Glasgow become a worldwide air cargo center. Excellent warehouse, rail, truck, and air cargo facilities combine with lack of air congestion for arriving and departing flights to place Glasgow is in a central position for worldwide markets. Such use can provide both training and jobs. (Slide.)

Warehouses such as this can provide air carriers of the Nation and the world with the means of meeting transportation requirements for cargo, storage, and distribution. They can also be used for training cargo, bomber, and related units. Notice the truck in the left side of the warehouse. (Slide.)

The Great Northern Railroad provides nationwide rail service with a spur-line on the base. (Slide.)

There could be warehousing, manufacturing, or training facilities, in a building like this, available in almost unlimited supply. (Slide.)

Solutions to converting Glasgow to nondefense purposes include a residential, technical institution and vocational school with possible aviation, health, mechanic, and related training along with encouragement of airlines and private industries to use the vast resources. (Slide.)

A postsecondary 2-year technical institute appears feasible, and may well receive support from a variety of Government, foundation, and industry sources. (Slide.)

Other possible Federal programs may be accomplished within existing or planned legislation. Such Federal programs which meet recognized national needs might include training and rehabilitation along with safety research.

The real question is whether or not the total community resources of Glasgow Air Force Base—can be converted to vocational and technical training uses, industrial development or other educational needs and related uses, and become a training and production asset to the community, the State, and the Nation. (Slide.)

Potentially, Glasgow Air Force Base can become the Nation's first national center for human resources development with a comprehensive education facility featuring testing, experimentation, and demonstration for the entire Nation.

The Nation is faced with a one hundred million dollar question. The replacement costs of these facilities is unquestionably in excess of the original investment, but even more important than the money and the buildings are the lives that can be touched by wise use of Glasgow Air Force Base. (Slide.)

Mr. OLSEN. Again I want to thank the chairman for this opportunity to make this presentation.

Thank you very much, Mr. Chairman.

Mr. PUCINSKI. We want to thank our colleague from Montana, Mr. Olsen, for presenting before our committee a truly imaginative program, not only that would serve his own State but would serve the interest of the country. I might say that bringing this program to our attention really tops off the many imaginative and innovative ideas that we have seen over the years here in Congress that have emanated from this very fertile mind.

There is no question that the legislation before this committee does concern itself with the very project that you have presented us here today and I would say the people of Montana could well be proud of the fact that its congressional delegation is looking ahead.

This is the kind of thinking that I think the country needs. You are going to be faced with a problem out there in the middle of 1968 and the fact that you are here this morning before this committee a year in advance of that date and urging passage of legislation which would make possible the utilization of this very important and vital installation for a National Center for Human Resources Development does show the kind of imagination that you have brought to this Congress. Congressman Olsen, I would think that the people of your district ought to be very proud to know that they have a Congressman of your character.

This fits right into section 14 of the bill that is before us. Congressman Hawkins from California and some of the other Members and myself have provided in this legislation, you will notice, that for

1968 we provide $10 million, or $100,000 to each State, for planning and then we follow right behind a year later, in 1969 by authorizing $100 million to set up these residential vocational educational schools. The program that you have described here today certainly, with some adaptations and modifications, would fit right into this kind of thinking.

As you were making the presentation, I talked to my colleague from California, Congressman Hawkins. It would be my hope that we cold provide sufficient funds here to assure the establishment of at least one good vocational education center in each State.

Now, your facility there would be sufficiently large to take care of a much broader area. This would be in no conflict with our proposal here, but I think, Congressman Olsen, that you are in the right church and the right pew when you come before this committee and show us graphically with your presentation this morning exactly how these funds could be spent.

To show the depth of your wisdom and why you have every right in the world to be very proud of your presentation this morning and why the people of the State of Montana ought to be very proud of your foresight; you were not here the other day when we had testimony showing that in some 30 months from now, in 1970, some 9.5 million youngsters attending public high schools in America, or one out of every two youngsters attending high school in this country, by 1970 is going to be taking some form of vocational education. The needs in terms of financing are enormous.

I have only one fear, that the legislation before us is much too modest to meet the needs of 1970. Now, we are not talking about 1980 or 1990, or the year 2000; we are talking about 30 months from now when this country is going to have a crisis in vocational education, when these youngsters start realizing that, indeed, one great path to success in America does not lie in a college diploma.

As I said before, when we opened these hearings, we have become so obsessed with a need for college training that we have forgotten that eight out of every 10 children in this country never go to college for all sorts of reasons. So if ever I saw a logical program presented to this Congress, your presentation this morning fits right in that pattern.

I would like to congratulate you. I would like to congratulate you for the foresight you have shown in taking an ongoing Government installation in which we now have $100 million invested and instead of just letting it wither away, as we did for instance with Bong Airfield in Wisconsin. We poured $44 million into that installation and then just abandoned it, let the weeds take over, and here was a huge loss of taxpayers' money.

I am glad to see that the congressional delegation of Montana has no intention of letting that happen out there at Glasgow. It is my hope that this legislation can be improved and will get the support of the Appropriations Committees, so that we can get the money earmarked to permit some funding for such a facility. In my judgment, your presentation today focuses on one of the most exciting opportunities that we have in the whole field of education—that is the field of vocational education, where we can make a significant breakthrough in upgrading skills in this country and giving millions of young American youngsters who now are sort of just going through life aimlessly, not knowing quite what they are going to be doing, a chance at some meaningful direction in developing their human resources.

For that reason I want to congratulate you and I can only emphasize and never too strongly, how proud your constituents ought to be of the foresight and the vision and the imagination that you have demonstrated before this committee this morning.

Mr. Olsen. Thank you very much, Mr. Pucinski, and I want to say that we are all very grateful to the people of Chicago for sending you down here to provide leadership for this committee and this program.

We need your leadership and I want to say that I know from my knowledge of our colleagues that they are going to follow your leadership in this field.

Mr. Pucinski. We certainly hope so.

Mr. Hawkins?

Mr. Hawkins. Mr. Olsen, I want to concur in the chairman's commendation as well as his more specific suggestions of what can be done.

May I merely ask you about the current facilities that are now available in that particular region, not only in the State of Montana, but the adjoining State. What type of facilities do you now have in the vocational education field?

Mr. Olsen. In the whole State of Montana there is only one vocational education school.

Mr. Hawkins. Is that a residential one?

Mr. Olsen. No, it is not.

Mr. Hawkins. It is not a residential one?

Mr. Olsen. That is at Havre, and it is really not adequate for the State of Montana. It is the best the State can do, and we are very proud of it, but it is not adequate for the State itself. There are some other vocational training schools connected with high schools, but they are not adequate either. They are just about the best that those school districts can do, but they are not adequate.

Mr. Pucinski. They are very limited, I take it?

Mr. Olsen. That's right, nothing comparing with the imagination that has been put into this particular presentation. I think Dr. Strickler would like to respond to Mr. Hawkins.

Dr. Strickler. The facility at Harve is a post-high-school institution, too, sir, college level. The surrounding States around Montana haven't any formalized system, but informal discussions clearly indicate that as States they need to be doing much more in this area and all these States are interested in that.

Our discussions with the Office of Education staff indicate another potential use here that we are quite excited about, namely, using the Glasgow resources for research and demonstration and experimentation on a national basis.

Most all of the other fields of knowledge, as you gentlemen well know, have been well provided for. We are doing a lot in language, we are doing a lot in many of the science fields, but as you point out, Mr. Chairman, this is a real area of neglect, so we think the resource does lend itself to both provision of local, regional, and national needs and experimentation and demonstration.

Mr. Hawkins. Thank you, Dr. Strickler.

Mr. Pucinski. Gentlemen, we would like to thank you for your very, very imaginative and instructive testimony this morning. We are grateful to all of you.

Mr. Olsen. Thank you very much, Mr. Chairman.

Mr. Pucinski. Our next witness is John Henry Martin, vice president of the Responsive Environments Corp., of Englewood, N.J.

Dr. Martin, I understand that you do not have a prepared statement, so I suggest that you proceed any way you wish.

STATEMENT OF JOHN HENRY MARTIN, SR., VICE PRESIDENT, RESPONSIVE ENVIRONMENTS CORP., ENGLEWOOD, N.J.

Dr. Martin. I will be brief. I thank you for the invitation to come; I am happy to talk to you.

I represent a company that is in the field of educational technology and probably the oldest in active work in this area. Speaking for myself, I have been a public school teacher and superintendent of schools for the past 30 years, having recently left it and currently I am consultant to Mr. Shriver of OEO and the Office of Education.

The talking typewriter has been well publicized in the national press and magazines. What generally is not known about this is that the instrument was essentially developed and completed in 1961. The company adopted an extremely prudent point of view that it wanted careful research for 5 years before adapting it to any commercial applications.

I would like to speak this morning about a couple of the myths of technology and its availability as related to literacy as the basic undercutting edge for education.

Literature today talks about the fact that computer instruction and technological change is essentially a 10-year-away proposition. We are in large-scale use in Chicago, we have 10 machines being operated by the department of public assistance for 4- and 3-year-old children from the depth of the city's slums being trained to read at that age in advance of the fact that typically this same population does not learn to read until several years later.

The city of Mount Vernon has eight instruments, the city of New York has a major installation of 20 now going on line for adult illiterates.

The State of New York has purchased 18 instruments for hospital use for therapeutic purposes and for institutionalized people to be rehabilitated and put back on the payrolls of the public.

We are now ready and are planning with a number of cities what we call learning centers, essentially 20-machine operations, and five of these in five parts of a section of a city will move in on essential functional illiterates to the tune of about 10,000 people a year and can be serviced for an equipment cost of well under a million and a half dollars.

We have the paper programs to go with it. The widespread assumption that program work has lingered behind technology is true, but it is not true of us. We are moving within our own facilities working with the MacMillan Corp., the Bank Street Readers, and the Sullivan Readers in an adaptation for it for a larger use.

If I may take a moment to talk to you about what happens to the 18- or 19-year-old semi-illiterate youth who are leaving our high schools in unhappy numbers. A number of years ago I did my first experimental work with these machines with preschool children, 5- and 4-year-olds. I found that after 3 o'clock I had idle expensive equipment, and a high school 18-year-old whom I had placed to work in the warehouse, who could not match the labels with the trolley he pushed around the bins with the labels on the materials in the proper cubicles. He was transferred. He had been in and out of three or four major schools in Metropolitan New York and had attended a clinic for one summer and was in effect unteachable.

He was an angry boy, resentful, full of antagonism of the world he could not take part in. We put him on the machine and one of the most amazing sights in my life, he reminded me of Sonny Liston at age 18, one hand almost covered the keyboard of the typewriter, the second hand came up with one finger at a time.

At three and a half months Gary was able to undertake reading training, using the New York State automobile drivers manual as excellent motivational device. He was tested psychologically. The clinical report came back that he had less than 30 sight words vocabulary, words that he could identify, the total experience of the word. In 3 months' time we moved up through the primers, second-grade to third-grade material and in 3 months' time he was able to take a driver's written examination for the State of New York and get his driver's license.

We can do that with this instrument. We can take the shame and the pain and the ignorance away from adults who are unable to get jobs literally because they cannot fill out an application form. They cannot take the type of training to upgrade themselves.

The subliterate levels of our population is one of the [illegible] unemployment facts of our life. We are ready [illegible] and I [illegible] here to testify in support of that section of [illegible] bill that calls upon the States and the Office of Education to move quickly and heavily in with private industry on a partnership for vocational education.

That is my presentation.

Mr. Pucinski. Your work would become eligible under the demonstration projects, among other things. One of the purposes of the administration proposal is to try and provide some funds for new and motivative methods of preparing vocational education programs.

There are those in the Office of Education who feel that vocational education has not been sufficiently innovative and it is their hope that with this seed money for demonstration projects we can develop some new techniques and new methods. I would rather think that the techniques that you described here certainly do have a wide potential and distribution.

The whole purpose of the administration's proposal is this type of program. I am very happy to hear that you are making some serious breakthroughs in the literacy problems that so many of those who do not go on through school are confronted with.

Mr. Hawkins?

Mr. Meeds?

Mr. MEEDS. I am sorry, Mr. Chairman, I was delayed.

Mr. PUCINSKI. Very well. We are grateful to you for your testimony this morning, Dr. Martin. I think that certainly it does point up the many opportunities that have been sadly neglected in the development of this whole vocational education program. The deeper we go into these hearings, the more we learn that there is a great need for upgrading the whole process.

It is our hope that perhaps through this legislation we will be able to provide the funds for developing some of these new techniques that heretofore have been unnoticed. In many parts of the country vocational education has been stereotyped and limited.

With the whole new spectrum of technology in this country, it is obvious that we have to bring in industries like your own if we are going to keep pace with the needs of the training programs for those young people who do not go on to college.

As I said a little while ago, eight out of 10 youngsters in this country will never go to college, yet in our complex technology these youngsters have to be prepared and trained to take their places in the stream of the Nation's economy.

We are grateful to you for your testimony. Thank you very much.

Dr. MARTIN. Thank you, Congressman.

Mr. PUCINSKI. Dr. Herbert E. Striner, director of program development, W. E. Upjohn Institute for Employment Research, Washington, D.C.

Dr. Striner.

STATEMENT OF DR. HERBERT E. STRINER, DIRECTOR OF PROGRAM DEVELOPMENT, W. E. UPJOHN INSTITUTE FOR EMPLOYMENT RESEARCH, WASHINGTON, D.C.

Dr. STRINER. Mr. Chairman, I would like to thank you for the opportunity to come here today and testify. I apologize for not having a prepared statement, but as you probably know, the notice of this opportunity was a very short one.

I would like to emphasize that I do not speak for the institute, which is a privately sponsored, nonprofit, research organization. The institute was established under an endowment created by the founder of the Upjohn Corp. during the 1930's. Dr. Upjohn was concerned with the problems of the great depression and the lack of education and training, and established an institute which would concern itself solely with those problems.

I am delighted to testify because I have been involved in a number of activities over the past years which have had to do with vocational training, unemployment, employability, especially with regard to so-called hard core or disadvantaged; I would like to call them poorly equipped rather than disadvantaged, because we find that they are very rapidly able to become quite advantaged, quite skillful if we give them the equipment with which they can do jobs.

I served on the District of Columbia Youth Employment Commission. I was a member of the Review Panel of the President's Cabinet Committee on Juvenile Delinquency; I am presently a member of the National Manpower Advisory Committee, Panel on Counseling and

Selection; and I am a member of the Board of Directors of the Opportunities Industrialization Center in Washington.

Perhaps you are more familiar with the OIC operation in Philadelphia, which has been in operation for about 2 years, a private program, funded now by the poverty program, the Department of Labor, and HEW, located in a Negro ghetto, and has been able to bring in over 7,000 trainees and actually train and place almost 4,000, 90 percent of whom had not graduated from high school.

I want to testify today specifically on title II, sections 201 and 202.

I feel that these titles may represent a sort of breakthrough which the original Smith-Hughes Act represented back in 1917. These two titles are in the nature of being "sleepers," because the authority of the Commissioner of Education to move directly in the form of grants or contracts to the private sector and the non-public-school system represents an area of activity which it would be most difficult for me to overestimate in terms of its significance.

I find in the work that I did on the President's Review Panel on the Juvenile Delinquency Program, in the work that I have been involved in, in the District of Columbia Youth Employment Commission, and in traveling about this country, one of the major problems we face in vocational education is not necessarily in the form of money, although I do very quickly add that we need a great deal more to support the level of effort that you referred to for 1970.

I think the major problem is the fact that vocational educators themselves, especially at the local level, find that it is difficult for them to see new ways in which they can begin to deal with the changing needs of industry.

Under the Vocational Education Act of 1963 every vocational education program in this country with Federal support was supposed to set up business advisory committees. We found in a 2-year study just completed and about to be published by the Upjohn Institute, that in most areas of the country these business advisory committees were not functioning properly in order to provide for a curriculum which was realistic, provide for the type of skill training which would insure the employability of these youngsters after they completed vocational education.

We found and I found it to be my personal experience serving on these various committees that vocational education needs a spur of competition, that like most monopolies it becomes fat, satisfied, difficult to convince of changes that are needed within its own house. And what public vocational education needs very, very badly now is a new breeze blowing through the halls of education so they can begin to understand what they have to begin to do that is different.

What am I referring to specifically? We find that in too many instances public vocational education is not aware of new techniques, new skill needs of local industry. I keep emphasizing local, because most of the boys and girls we train are going to find employment locally.

We find that the curriculum tends to be obsolescent in too many instances. Additionally, we find that many courses can be shorter rather than longer.

I refer, for example, to the experience I had about 4 years ago when I was on the District of Columbia Youth Employment Commission. We set up a number of advisory committees of businessmen to examine the vocational training programs in the District of Columbia. One I recall specifically was in the field of printing. I am not talking about setting type, but photo-offset; a whole new technique of duplicating we use increasingly.

The businessmen came back and said, first of all, the course is too long; second, the course content reflected skills and techniques that were obsolescent. They could, in less time, produce a youngster capable of getting a job in the printing industry. Unhappily this report had almost no impact on the vocational school system in the District of Columbia.

We also found that there was too little distributive education teaching going on. We find that the idea of advice from noneducators is repugnant to a professional educator, and I speak about most of them now, not all of them. For example, I was preceded by Dr. Martin, who represents a major asset in the field of education and is well known for his innovation in the Mount Vernon school system and the other school systems he was superintendent of.

But we find that in an attempt to innovate, an attempt to bring new ideas into the system, the obstacles, the difficulties are almost unsurmountable. For example, we found that under the Vocational Education Act of 1963 if there was need for job training, vocational training in a local area, the State superintendent or the assistant superintendent usually in charge of vocational education could actually permit private training facilities, private schools to train for those jobs.

Now this looks good in print; it looks good in a bill. The only problem is that when you get down to the State level, you find that the assistant superintendents of State school systems in charge of vocational education are very jealous of their jurisdictions, their rights, and their training programs and are usually able to throw up sufficient numbers of obstacles so that by various delays these private training programs do not get underway and the young people we are concerned about do not get the training for the jobs which exist.

The solution, I think, is that we have to move to a complementary education system in this country. We have to begin to effect by direct grants, by direct contracts from the Federal Commissioner of Education, the funding of training programs which are in the nonprofit training schools, for profit training schools, and in industry itself. This is not a precedent which I am suggesting we establish. If we just remember the effectiveness of the GI bill of rights after World War II, when we were inundated by young people who wanted to acquire skills and we knew that the public system was inadequate to handle the numbers involved, we permitted the direct funding for the training of individuals with properly certificated training institutions, many of which were private schools, and we have been able to see the gains of that program.

I suspect that if we were to consider the innovativeness of this program which does not grow out of the emergencies of World War II, but grows out of the increased awareness on the part of the Congressmen such as yourself, Mr. Pucinski, who sponsored this particular piece of legislation, of the fact that we have to move in a new direction in order to meet the needs of the 1970's that you were referring to, this is far more innovative in its implications than the GI bill, which was always viewed as an ad hoc emergency program.

In this country we do have a number of excellent public vocational schools which have operated efficiently, which we can use as models. I am mentioning this since I don't want to be seen as an opponent of the public vocational education system. We know, for example, that the Los Angeles Trade and Technical School and the Emily Griffith's Opportunity School in Denver, are fine systems. We also have in the case of the Dunwoody School in Minneapolis, the Germain School of Photography in New York, the Manhattan School of Printing in New York, and the various OIC schools, nonprofit and profit type of institutions which are doing effective jobs.

So, to reiterate, I would say that under this title that I have referred to, we have the means of spurring the development of a complementary system and of moving directly to effective training programs in local areas regardless of whether they are in the public or the private sector, because what we are most concerned with is the effective use of tax money to train people for jobs that exist.

Let me add one other point. Being on the National Manpower Advisory Committee's Panel on Counseling I applaud your efforts to bring an increasing attention to the role of counseling in vocational education. Counseling and guidance, which is provided to the children who are college bound is so much more ample, so much more available than counseling and guidance for the children who probably need it even more so than the college-bound child.

I have been interested in the fact that as a youngster who is going to college approaches his senior year, he is inundated by representatives from universities, giving him all sorts of information, selling their wares, exposing him to what they have that they think he should be interested in.

But if you go to a vocational school, it is rarely that you find businessmen being brought in to present the skills they need, to sell the children on the fact there is a worthwhile and remunerative career in these industries. It is even rarer still that you get the sort of guidance and counseling which goes beyond the job, because many of the children come from homes which do not provide the inputs and the contributions which the children going to colleges are able to get in their home environments. So, the type of counseling and guidance needed in most vocational schools is of the most complicated and sophisticated type. I am sorry to say very little guidance is now being provided in most of the vocational educational systems in this country.

Thank you very much.

Mr. PUCINSKI. Dr. Striner, I want to thank you for your statement to the committee this morning. I would like to introduce, prior to your statement, the short biography we have about your background. Certainly the many activities that you have participated in in this whole field of vocational education does give you a right speak out on the shortcomings of the present program and the need and the wealth of experience in industry. You bring to our committee this morning testimony that I am sure will be most helpful in reaching some decisions on this subject.

(The biography referred to follows:)

BIOGRAPHY OF HERBERT E. STRINER, DIRECTOR, PROGRAM DEVELOPMENT, W. E. UPJOHN INSTITUTE FOR EMPLOYMENT RESEARCH

As Director of Program Development, Dr. Striner is responsible for the development of the Upjohn Institute program for the support of research concerned with manpower and training programs affecting employment.[1]

Before joining the Institute in September 1962, Dr. Striner was the Washington Director of the Urban Studies Program and Senior Economist with Stanford Research Institute. His major concern at that time centered around the development of a program focusing on the social and economic problems associated with urban and regional growth.

Dr. Striner, from 1959 to 1961, directed the Committee on Problems of the American Community at The Brookings Institution. CPAC concerned itself with aiding communities to develop more effective housing, urban renewal, economic and social development programs.

While with the Operations Research Office, Johns Hopkins University during 1957–1959, he directed the study of effects of defense expenditures on the United States economy and the relationship between military R & D and economic growth.

As Associate Director of the Foreign Impact Study, National Planning Association, during 1955–1957, he was concerned with the development of a methodology which would allow for the measurement of the direct and indirect economic effects of foreign trade on a community. As a result of this study, he co-authored the book titled *The Local Impact of Foreign Trade.*

He was also Director of the Industry Research Studies Program at the National Science Foundation, 1953–1955, and with the Department of the Interior, 1951–1953, in various capacities—foreign trade specialist, input-output economist, foreign trade agreement negotiator.

Dr. Striner holds A.B. and M.A. degrees from Rutgers University and a Ph. D. degree in economics from Syracuse University. He was a Maxwell Fellow and later a faculty member of the latter institution. He has authored a number of studies and articles, some of which appear in professional journals. In addition, he is listed in *American Men of Science* and *Who's Who in the East*. He is a member of the American Economic Association and the Operations Research Society of America. During the period 1963–1965, he was a member of the Review Panel of the President's Cabinet Committee on Juvenile Delinquency. In 1963–64, he was a member of the Youth Employment Commission of the District of Columbia. He is currently (1966) a member of the National Manpower Advisory Committee's Panel on Counseling and Selection.

Mr. PUCINSKI. I am particularly grateful to you for speaking out in support of section 201, because, as I said to a previous witness, the Department's whole hope in 201 is to provide funds for demonstration projects which can remove some of the obsolescence in vocational education programs around the country. As Dr. Martin had previously testified, he and others have brought into this field some new ideas and techniques which should be made known to all school systems.

You yourself pinpointed some of the roblems and the administration feels that in 201 we do have the nucleus for some significant breakthroughs.

I was impressed with your statement that 201 is a sleeper that could become as significant to this country as the Smith-Hughes Act was in 1917. So I am very grateful to you for taking time from your busy schedule to be with us.

One point, when do you think your report on these advisory councils is going to be completed?

Dr. STRINER. This report was written by Mr. Samuel Burt, assisted by Mr. Henry Holmquist. The report will be coming out as a book published by McGraw-Hill, and I believe it is due this coming summer.

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[1] The Institute, founded in 1945, is private, nonprofit, and endowed by a trust established by the founder of The Upjohn Company, Dr. W. E. Upjohn.

Mr. **Pucinski.** I am sure the committee would like very much to see at least some of the high points of that report, because you do touch upon this very important problem. In 1963 we did set up machinery for these advisory councils and I think it is important for our committee to see how well those councils are working. I gather from your statement that this report probably is one of the most intensive studies of this particular operation that we have done today.

Dr. **Striner.** This is the first thoroughgoing study of the role of the business advisory committees in our local vocational educational programs. Mr. Burt left the Upjohn Institute to become a special assistant to Mr. Frank Cassel, now the Director of the U.S. Employment Service, and you may wish to extend an invitation to have Mr. Burt testify on this question.

I think this report is of great significance, because while we speak of the rapid changes in technology, we don't usually understand that what must be involved is the development of a sufficiently flexible vocational education system which can quickly perceive where changes are going to take place, make the changes in curriculum, retrain in many cases the vocational education instructional staff, and then put this system into operation. We found that many of the public vocational systems were so large, so cumbersome, they could not move rapidly enough.

There was always this lag, this cultural lag, which almost guaranteed a built-in obsolescense. I think for this reason we have to look in all sort of new directions. By the way, let me also compliment this committee on the concept which it has introduced of retraining vocational educational instructors.

In 1963, when I testified before the Clark committee holding its massive hearings on manpower, I suggested this approach, and Mr. Brademas was in the audience. We talked about it later, and he suggested that this was an idea that certainly was quite feasible. I could not blame a man who was teaching dairy husbandry in the State of Minnesota, was in his middle forties with two children in college, for becoming very defensive and doing whatever he had to in order to prevent dairy husbandry from being cut out of the curriculum because of the fact that the parents of the children he was teaching were being asked to cut back on milk production on their farm.

I suggested that instead of being negative and fighting this individual, we take this individaul who was probably a graduate of an excellent college of agriculture with a curriculum which had all sorts of courses in chemistry, botany, zoology, and retrain him so he could become a teacher of general biology or another science in the local high school and stop threatening him because of the inflexibility of the system itself.

So I think providing of funds for retraining of an instructional staff is a first-rate measure.

Mr. **Pucinski.** Thank you.

Mr. Meeds?

Mr. **Meeds.** Thank you, Mr. Chairman.

Dr. Striner, I would like to compliment you on your testimony. You appear to me to be the kind of witness that might give this committee some of the answers or at least some directions toward what we are looking for.

Dr. STRINER. I will certainly try.

Mr. MEED. Coming before this committee, you imply one of the basic problems in vocational education is to upgrade the prestige or the standing of vocational education.

I know this is not a simple question and I don't expect you to try to answer it in a few words, but could you give us your ideas on the type of legislation we might enact which would help to do this, upgrade the prestige of vocational-technical education?

Dr. STRINER. Yes, I would be happy to, and I don't pretend to be able to give all of the answers or the answer—there is no one single answer.

I think, to begin with, we have to understand that many of the youngsters who drop out of vocational education don't drop out of vocational education because they don't want a vocational education training. They drop out because they have been able to perceive that many of the programs lead nowhere, and unfortunately for the average 15-, 16-, or 17-year-old it is more fun being out of school, to their way of thinking, than being in school.

I think that if we can begin to develop more effective training programs such as I have been describing today, the motivation to remain in and to attract better students by the way, will increase.

I think the idea of providing more funds for more professional types of guidance and counseling in the schools can be a tremendous help. Many of the vocational educators find themselves in a dual role attempting to deal with family problems, personal psychological problems, the problems of what is the future, and they are inundated with responsibility which should be shared with other individuals.

So we have an understaffing of a peculiar type. We have an understaffing of the types of skills which are not usually viewed in most vocational educational institutions as being terribly important to the vocational education program, but they are terribly important.

I think also that this concept of retraining is an extremely important one. Just as we don't think an employee should face a life of working in a dead end job, I think that if the average instructor knows that we can get funds to help in retraining himself, that this will have an immeasurable impact on his morale.

For example, I see no reason why in a field such as auto mechanics where we have yearly changes in the complexities of our automobiles, why at the end of each school year we don't have programs, perhaps federally funded or shared by some of the major automotive companies, where an instructor in a school system can spend 2 or 3 months working in a local automotive program with a firm to learn what has been happening.

For example, in most systems you find very few instructors who know anything about air-cooled engines and you see thousands of Corvairs, Volkswagens, and so on being driven. I think this is a problem we have to deal with and can deal with only by having appropriate funds made available for large-scale retraining programs for instructional staff.

Industry retrains constantly. In the field of education we very rarely train or retrain in the substantive field. I am beginning to get over into general education. I think the implications are there, however. If you want to upgrade your salary as a teacher, you return to school and take courses in teaching techniques. I think it would be far more beneficial if the people returned to school to take courses in the substantive field itself.

Mr. **Meeds.** I think you have touched on one of these, but there are at least two sections in this bill or the legislation we are presently considering. You touched on the guidance and counseling.

The other one would be the attempt to get innovative plans and an attempt for early, perhaps not decision, but recognition by students that a life of worthwhile endeavor lies in the vocational educational field, counseling, guidance, and programing as early as the seventh and eighth grades.

Do you have a comment on that?

Dr. **Striner.** Yes, I think that we have to be careful not to suggest that vocational education or skill training, begins to take place in the seventh or eighth or ninth grade. I am opposed to that.

I very militantly take the stand that vocational education calls for a tremendous amount of fundamental education and my own scheme of things, if you will, is to develop a fundamental educational program up through the ninth or 10th grade which is sufficient to carry an individual throughout his lifetime in terms of recycling of vocational education.

For example, I urge the use of the junior colleges, both private and public, as a means of affording individuals the opportunity of coming back into an educational system to acquire new skills. So I think at the very outset, our fundamental educational programs must not suffer; they must be added, too.

I do think, however, that what we have to do in our fundamental educational system is to inject much more concerning the developing skill needs of our economy, of our society, and the exciting job prospects of being able to work in a field other than the usual professions, not only in this country but abroad as well.

For example, think of the stimulus to a child of being able to work as an individual in a vocational field on AID program teams in various parts of the world.

Shortages throughout this world at the present time are not just of engineers, but of engineer assistants, of people technically trained to do the multitude of jobs which don't call for an A.B. degree in engineering. I think you have to start rather early in life indicating that the world of job opportunities is an extremely broad one, and do it in such a way that we motivate children to consider a whole broad job spectrum. But we don't do this. We emphasize college preparatory training, we emphasize becoming an engineer, physician, economist, or what-have-you. But I think there are a multitude of fascinating jobs coming up and I think one of the things we don't do in vocational schools is to indicate such prospects and do it in such a way, package it, if you will, so that it has the same appeal to a youngster at age 15 or 16 as the packaging job we do on the professions.

Mr. **Meeds.** I was also interested in your comment that we have not taken advantage of private schools and how you likened this situation to the GI bill.

Are you recommending that aid be given directly and grants be given directly to private institutions or, rather, in the form of the GI bill stipends, that aid be granted to students attending private institutions?

Dr. **Striner.** I could not hear the whole question, sir. I am sorry.

Mr. **Meeds.** You likened the situation which we have into accelerated attendance in private schools, private profit institutions, to the GI bill situation when we did this. Are you saying that we ought to give aid or grants directly to the private institutions or rather, as we did in the GI bill, to students attending these instituions?

Dr. **Striner.** I see.

I have thought about this a good deal and I would pursue exactly the same course that we followed with the GI bill. First of all, let me preface this answer by saying that I have worked a great deal with young people who are from the so-called disadvantaged group and I am impressed with the insights they have, the perspicacity they have. I have a tremendous amount of faith in the ability of young people to shop around and locate the sort of resource they think they can use best to advance themselves.

Now, this will not be a perfect system any more than it was perfect back in the post-World War II period. But I do believe that the private schools and the nonprofit schools can become very competitive in selling their wares to young people, to entice them to attend their institution, and I think that the Federal grant should go along with the individual so that if a young man shows up and makes application to the ABC School of Upholstery and it is a certified school, which means we have to get into a question of certification; but if it is a certified school, then if that upholstery training program for 8 months costs, let's say, $500, that $500 follows that student. It is not paid to the student, but it is paid to the school. And I think that in this sort of a situation, the private schools become very competitive in terms of developing counseling services, developing good placement techniques, because you see there is a profit involved.

If they do not train adequately for the job, once the individual is placed and the company finds that this is a poor product, the companies do not come back. And if enough companies don't come back and the schools don't have a decent placement record, they find it difficult to attract students. I have looked at a number of private schools and have found that this works. The profit motive can be a very effective mechanism.

I have also found that where you have these types of private programs operating, the public vocational education programs begin to sit up and take notice, not quickly, but they begin.

For example, in Philadelphia, the Opportunities Industrialization Center program there, which has been so effective over the last 2½ years, has now begun to stimulate the Philadelphia vocational education system to begin to look inwards at its programs and ask itself why O.I.C. is able to train and place so much more adequately than has been the case in the public system.

Mr. **Meeds.** I am sure I have taken more than my share of time. Thank you.

Mr. **Pucinski.** Mr. O'Hara.

Mr. **O'Hara.** Mr. Striner, it seems to me that perhaps more than innovative and exemplary programs, which we hope will show ways by which the vocational education system might better perform its function, one of the things we ought to consider is the imposition of so many requirements on the vocational education program which we already have.

I believe Federal funds account for almost all—someone said 90 percent—of the total funds spent on public vocational education, and I think perhaps we ought to be more insistent about the things it is spent for.

If you would permit me, I should like to comment on the objectives of a public vocational education program, in part, listed in the bill under paragraph 3 of section 201. In the first place, most young people, including those who are college bound and those who are not, do not have a clear idea of what is involved in the various trades, occupations and professions—what one does and how he does it, what his opportunities are and what his recompense might be. So I think the first objective of the system ought to be to familiarize young people with the kinds of opportunities open to them and the preparation needed for these different kinds of opportunities. Paragraph 3 of the bill would permit them to have some idea of the opportunities available so they can make an intelligent choice.

Do you not think that should be the first objective?

Dr. **Striner.** I quite agree. There is no doubt that the youngsters should be exposed to such information and the vocational educational system should be increasingly pressured into obtaining good labor market information. As a matter of fact, I think as I recall in the bill you specify that programs will be based on labor market analysis.

However, as I am sure you know, Congressman, one of the gravest deficiencies in the United States, is in the area of labor market analysis.

Mr. **O'Hara.** I am very familiar with that.

Dr. **Striner.** I know you are familiar with it. We shared some time together on this and coming from Michigan, you are most familiar with the problems of job vacancy surveys, I could not help but smile as I read that term, because thereby hangs a tale.

I suspect what should be done in this sort of a bill, and this would really make history for a congressional committee, we talk about systems analysis and program budgeting in terms of the executive agencies, but we very rarely see congressional committees that seem to develop legislation so that it strikes at a system rather than a specific piece which fits in with a committee jurisdiction.

I would suggest that one thing that should be done is spell out this labor market analysis we talk of so that it must be related by the vocational educational system in a community to the job vacancy survey work being done in that community by the U.S. Employment Service.

Over the next 2 to 3 years the pioneering efforts now underway in the Employment Service to develop a job vacancy system will become the technique for determining where the new skill needs are. We will also be involving the business community in helping the Employment Service to do what the Employment Service must do in terms of labor market analysis. But these same individuals can also be very effective in helping vocational educational curriculum design people in determining where their efforts should be going.

So I quite agree with you and I think this has to be spelled out in some greater detail.

Mr. **O'Hara.** I think you are right. I think our first objective should be to find out. We hope to improve the USES function in determining just what the status of the labor market is and what it is apt to be. The USES can give these young people counseling, guidance, experience, exposure and some information on which they can base tentative choices.

Dr. STRINER. I agree. In fact, you have a good opportunity to do this because Mr. Grant Venn who came in as, I believe, Associate Commissioner of Education for Vocational Education, has been one of the foremost leaders in the country in pushing a new idea of vocational guidance and counseling, and I think with the hope of this sort of legislation, Mr. Venn would be in a much better position to provide the sort of guidance and counseling you and Mr. Meeds referred to.

Mr. O'HARA. Yes, and it seems to me that the system has to do one of two things. Once a person has more or less identified an area in which he is interested and in which he has some aptitude, the system must either prepare him for work in that industry upon the completion of the course or it must prepare him for post-high-school training which will lead to work in that trade or profession. It should prepare him for apprenticeship, for technician training or whatever follows high school.

I think we are financing a lot of vocational education programs which are not really getting at any of these objectives. It seems to me that perhaps one of the things we ought to do in reviewing this vocational education situation—and I am delighted the chairman is taking a broad look at it—is to define some objectives, propose some criteria and say unless a particular project meets these criteria, no money.

Dr. STRINER. I agree. I think that strings should be attached to vocational education. We still find that about 40 percent of the federally funded programs are going into home economics. This doesn't reflect what I believe are now the goals of this Government in terms of job training in the nonprofessional field.

I think that distributive education, for example, finds a very weak vocational education program. Yet one of the simplest and most observable facts of life is that with the flow of people into the cities and the increase in the service trades and the distributive trades, this is where we have to train more people. But this is one of the weakest programs in vocational education.

What I think is necessary is the development of criteria which must be reviewed frequently; whenever I recommend criteria, I immediately add "frequent review" because there is nothing worse than setting up criteria which gradually over the years achieve certain "hardening of the categories." They were valid back in 1967, but by 1977 they are an anchor around your neck, and I think what we need are criteria which are as objective as possible to provide guidelines, but always reflect current needs and goals.

For example, there should be some relationship between the funds available and the use of those funds for specific types of training programs and information which we can get on the development of new industries, new jobs, on the proportion of skills which are apparently needed by industry. Thus, for example, as one type of skill is being phased out there would be an automatic tightening of the purse strings for training vocational education in that particular field with more money being loosened up for skill training for jobs which are in short supply in the economy.

Mr. O'Hara. I could not agree with you more. I will close by noting that the Holland subcommittee is starting some hearings on manpower policy generally. Mr. Pucinski's subcommittee, as I indicated, is going into this problem in some depth. I hope that perhaps the Committee on Education and Labor, in this session of Congress, does something about relating our various programs and determining what their objectives are and how we hope to attain those objectives, and I think you can make a constructive contribution.

I would not be surprised to see you before the other subcommittee.

Mr. Pucinski. We are thankful to have Mr. O'Hara as a member of this committee and also as the ranking member on the Democratic side next to Mr. Holland on the Select Committee on Labor, because it does give us a chance to have good liaison between two committees, and I do agree with him that between these two committees we could come up with some meaningful guidelines in this field.

As Dr. Striner knows, Mr. O'Hara has certainly been in the forefront in developing the manpower program, so between these two committees I think we are going to come up with some meaningful programs.

Mr. Hawkins?

Mr. Hawkins. I pass.

Mr. Pucinski. Dr. Striner, there is one question I want to ask you. The board of education in Chicago has proposed what they call a comprehensive high school, which would be a high school that would concentrate and have its normal complement of the normal college prep subjects and it would also have a strong vocational section, so that the youngster could get a balanced education. This was included in the superintendent's overall program and recommendations.

Now a citizens committee has taken a look at this concept and has recommended that we reconsider this concept, because they fear that by putting vocational training in with the normal high school comprehensive program, that actually you would be increasing segregation in that the youngster less apt to go on to college would gravitate into these vocational centers and then in the long run you would have a segregated school system.

Now, I am not quite sure that I can see this as a dominating factor, so I was wondering if you would offer your professional opinion on this problem.

Dr. Striner. Of course, my remarks concerning the Chicago proposal would have to be highly tentative since I have not looked at the proposal itself.

Mr. Pucinski. I understand that.

Dr. Striner. I can say this—which superintendent proposed this?

Mr. Pucinski. I believe it was proposed by the staff.

Dr. Striner. I see.

I only ask that because I recall discussing in some detail some of the ideas which the former superintendent of education in Chicago had while I was on the Juvenile Delinquency Review Panel. I found that one of the problems we had was that, and it is endemic in the field of education, as soon as some sharp-eyed people begin looking at the system, certain OK words begin showing up, words like "comprehensive," because this seems to imply that this is much better. It takes everything into account.

As a matter of fact, while the words may be new, the program may not be very different at all. I suspect that the problem in Chicago may be one where just bringing vocational aspects of a program closer to the fundamental educational parts of the program and hoping that this will take care of the problem, will not take care of the problem. This is so because what you are doing is you are not only bringing programs together, you are bringing children together who have had varying degrees of inputs, contributions, affection, concern, and that before you can jump, let's say, from a disparate system to a comprehensive system you may have to move gradually in that direction, providing the counseling, providing the motivation, providing new types of training programs, gradually to separate systems before you can really meld them together as one system.

Mr. Pucinski. My first initial judgment would be that the criticism might be a sound criticism if we were to think of vocational schools as we had traditionally thought of them in the past.

There is no question that in many instances in many parts of the country the vocational school is kind of a dumping ground for the youngster that was not going anyplace and you had to put him someplace. So the school administrators would say, well, he is 14 years old and he cannot quit school because the law requires he stay in until 16, so we stick him in the vocational school here.

I think that has been the history or tradition. But when we talk of vocational skill centers as we have been talking here—as the 1963 bill provides, but unfortunately the appropriation has not been there—when we talk of the things that the gentleman from Michigan and Mr. Meeds talked about earlier, we envision the vocational school as something a lot more dynamic. With counseling and with all the other things we have talked about here, particularly the many new exciting skills and crafts and trades that we hope to bring into the vocational system, I don't think that the criticism might be valid if you were to think of this vocational institution as something on a par with a college preparatory course.

Dr. Striner. If we assume that what we are talking about is a sufficient increase in the availability of funds to provide for the guidance needs, counseling needs, the upgrading of the vocational instructional staff itself, the development of programs where businessmen can begin to come in and talk in direct confrontation with these youngsters about how badly they need them; if I can include all of that, if I can include a fundamental education system which is so geared to meet the level of needs of different groups and push them as far as their potential, if I can envision all of that happening under this proposal, this plan in Chicago, I would think that this would be excellent.

But many things will have to be done simultaneously and I think—I know I am taking too much time probably, but let me just suggest one thing in closing. I do believe that one of the reasons so many of our programs tend to fail, aside from funding, result from the fact that we feel we can attack a multifacet education program effectively by just dealing with one facet. But our educational and social problems are somewhat like the problem we used to have when we were confronted with simultaneous equations in algebra. We learned that you could not solve a simultaneous equation by looking at just this one little piece. We soon learned, or you failed, you had to solve for many factors at the same time.

What we are confronted with are social and educational problems which are really social simultaneous equations.

Mr. PUCINSKI. Thank you very much, Dr. Striner. I want to really express our appreciation to you for the fine contribution you are making today toward a better understanding of this legislation.

Dr. STRINER. Thank you very much.

Mr. PUCINSKI. Our next witness is Mr. Frederic S. Cushing, who is president of the Glencoe Press, and also vice president of the MacMillan Co.

I am going to ask our colleague from California, Mr. Hawkins, to introduce Mr. Cushing, because Mr. Cushing is from California.

Mr. Hawkins.

Mr. HAWKINS. Mr. Chairman, thank you for this opportunity. I realize the time is growing rather late and I will be brief in my introduction.

Mr. PUCINSKI. We are going to go over.

Mr. HAWKINS. Fine, but I certainly think the mere fact anyone who would leave California to come to Washington is a dedicated individual to begin with.

Mr. Cushing recently assumed leadership of an organization which is pioneering a most interesting development in the private sector, relating specifically to vocational education. Mr. Cushing is vice president of the Macmillan Co. and president of Glencoe Press, its subsidiary, which is totally devoted to the development, validation, and publishing of teaching systems for vocational education, with special emphasis on the community colleges which we in California feel are so important.

Mr. Cushing has a long and distinguished career in American postsecondary textbook publishing. He was a vice president of Holt, Rinehart & Winston, in New York, before assuming the presidency of Glencoe Press and was a director of Holt, Rinehart & Winston, Ltd., of London and Montreal.

A prevailing interest in Mr. Cushing's 21 years' experience in publishing has been the working relationship between the public and private sectors. He has served as chairman of the board of directors of the Joint Directory of Higher Education. He has served on the board of directors of the American Textbook Publishers' Institute as well as the joint Washington committees which concern themselves with relationships between American book publishers and the Federal agencies.

He brings to us today a wealth of experience and deep interest in the problems confronting our committee, and is prepared to talk about the extensive resources which exist in the private sector and which are of potential use for improvement and innovation in vocational education.

It is certainly a great honor for me to have this representative of our State and a representative of one of the great industries of our country with us today and to have him share their thoughts with us.

With that I am pleased to present Mr. Cushing.

Mr. PUCINSKI. We are very grateful to our colleague from California, Mr. Hawkins, for helping us arrange the appearance of Mr. Cushing here before this committee.

Mr. Cushing, your entire statement will go in the record at this point and we will let you proceed in any manner you wish. You can read the statement or paraphrase it, or summarize it, which perhaps give us a little more time for questioning under the latter procedure, but I will let you be the judge of how you want to proceed.

STATEMENT OF FREDERIC S. CUSHING, PRESIDENT, GLENCOE PRESS, BEVERLY HILLS, CALIF.

Mr. CUSHING. Thank you very much, Mr. Chairman.

Mr. Chairman and members of the subcommittee, I would like first of all to express my appreciation to Mr. Hawkins for his cordial welcome to me. You have made me feel at home so far away from home.

I am grateful for the opportunity you have given me to participate in your exploration of the ways and means of improving both the quantity and quality of vocational education in this country today. What you do with this program has great significance for all segments of American life. It will determine the ability of our country to further the goals which we have set for ourselves for the next several decades.

I would like to emphasize at this time that I submit my testimony as an individual, and not as an official delegate of any trade association related to our industry.

In appearing before you today, I wish to share with you some attitudes and experiences of one who has been intimately involved with the publishing and distribution of educational materials to national and international markets for over 30 years. I would also like to think that my appearance here represents an example of the private sector's involvement in our Nation's massive efforts to improve and to provide ever-increasing educational opportunities for all Americans. It is my earnest hope that, as a result of our meeting, I, and the industry from whence I come, may learn from the committee; that we may together explore ways to solve common problems—the solutions to which can become educational realities.

Mr. Chairman, as you have suggested, I have submitted my testimony for the record, but in the interest of time and with your permission already granted, I would like to offer some highlights of the testimony which is on the record.

(Mr. Cushing's prepared statement follows:)

STATEMENT OF FREDERIC S. CUSHING, PRESIDENT, GLENCOE PRESS, BEVERLY HILLS, CALIF.

Mr. Chairman and Members of the Subcommittee: I am grateful for the opportunity you have given me to participate in your exploration of the ways and means of improving both the quantity and quality of vocational education in this country today. What you do with this program has great significance for all segments of American life. It will determine the ability of our country to further the goals which we have set for ourselves for the next several decades.

In appearing before you today, I wish to share with you some attitudes and experiences of one who has been intimately involved with the publishing of and distribution of educational materials to national and international markets for over twenty years. I would also like to think that my appearance here represents an example of the private sector's involvement in our nation's massive efforts to improve and to provide ever-increasing educational opportunities for all Americans. It is my earnest hope that, as a result of our meeting, I, and the industry from whence I come, may learn from the Committee; that we may together explore ways to solve common problems—the solutions to which can become educational realities.

The organization I serve is located in the heart-land of "the open door extra-secondary comprehensive community college." Our company is, by historical industry standards, a new venture. Authorized as a division of the parent company in late 1965, its formation recognizes the need to create editorial and research capabilities which would reflect the dramatic changes in certain segments of education and provide new materials of instruction in post-secondary specialized education. For example, our company has recognized the national leadership given by the Administration in such matters as Crime Prevention and training of Law Enforcement Personnel. We have developed materials designed for the training of future Law Enforcement Personnel for use in programs of instruction offered by Community Colleges, Police Academies and in-service training.

We have also been able to identify other programs of instruction which relate to national needs for specialized training of personnel who will find careers in public and community service. Further in the testimony, there will appear specific details on these and other training programs. I am aware of your concern to broaden the use of the innovative, specifically in vocational education, and if there is validity in the concept that "the market follows the book" or, to express the thought another way, that educational advancement is a corollary to the availability of educational materials—then, the educational book publisher's observation of change and your observations and sensitivities have natural congruence. From my vantage point, I would like to cite the following changes, which, as you know, are happening very rapidly.

These changes have brought about an acute awareness throughout our society of the impelling necessity to provide more meaningful and effective educational opportunities. Related to this general awareness are the data developed from projections of manpower needs in our society. Many of these manpower needs are either in new technologies or in new classifications of employment. Many of the new classifications are providing vocational opportunities to support highly skilled individuals. Such support permits our profesisonals to devote their full energies to the central tasks. For example, is it efficient for a surgeon to perform routine tasks? Futher, a limited number of sub-professional occupations give greater opportunity and mobility within our society.

In broad terms, we observe two forces at work: one force provides new career opportunities; the other force provides new categories of sub-professional work to support a relatively small group of specialists whose services are in high demand.

Other forces are at work as well. There are statements from educators that the traditional "manual arts" training, as provided in vocational-technical high schools, is not providing for our youth the tools they need to maximize their career potentials; nor is it providing sufficient motivation to encourage their greater achievement. The National Commission on Technology, Automation, and Economic Progress recommended, in a recent report, the postponement of most vocational training until after completion of high school. Reports from The Commission and other educators indicate that the present vocational-technical high schools, are, in a sense, a paradox. On the one hand, the "technical" graduates are well prepared for admission to institutions granting associate or baccalaureate degrees in programs in engineering and the technologies, while, on the other hand, the "vocational" graduates are often ill prepared for either employment or for further education. The concern, often expressed, is that the "vocational" programs have provided a "dumping ground" for academic misfits and disadvantaged youth.

These changes and this paradox, which are ever-so briefly cited, are in my opinion motivating the accelerated growth of "the comprehensive community college." While there is not universal agreement among community college leaders regarding curriculum, there is a conviction that the student, whether vocationally bound or transferring to an institution of higher education, shall receive instruction in basic communication skills and have the opportunity to discover ways in which he can relate to society in behavioral terms as well as become skilled in a vocation, placing himself on a ladder of employment success.

It is also clear that the community college is expected by the area which it serves to offer continuing education services to segments of the community other than those who qualify for normal matriculation. The community colleges, and especially those serving metropolitan areas, provide programs to adults in the evening and can relate course offerings to the industrial and public manpower needs of the community. It has been found to be of particular service and attraction to many so-called "drop-outs" who will actively week vocational training at this level but who are discouraged and disenchanted with their high school experience. Many drop-outs are aware of their educational deficiencies and seek opportunities other than a return to a secondary school.

In my experience, I have found that manpower needs, by broad definition, fall into four categories. And, it is significant to note, these categories encompass the vocational areas which are undergoing either dramatic change or are vividly new in concept. The broad categories are:

Health-Related
Business-Related
Engineering and Science-Related

And the fourth category will be of special interest to you:

Public Service Occupation-Related

Permit me, for the sake of clarity to give some examples of what is new in the first three, more traditional categories.

Health-Related: we find a growing need for paramedical technicians to assist the professional medical specialist and to free him from administrative and some technical tasks.

Business-Related: one only need cite the range of opportunity and training needed in the occupations created by Electronic Data Processing and its dynamic applications to Business Management.

Engineering and Science-Related: examples are plentiful, but I would cite the rapid development in all phases of Mechanical Power Technology—e.g., jet engines and their application to modern transportation need. This area would include training of personnel for industrial work as well as service repair functions.

The fourth category of ***Public Service-Related Occupations*** is the newest and provides some of the most exciting vocational opportunities: Police Science, the training of Law Enforcement Personnel which calls for a new concept of the Peace Officer and Administrator; Fire Safety and Prevention; Urban Management; Recreation Supervisors; Environmental Health Specialists; Traffic Management Aides; Welfare and Family Assistance Workers; Radiological Health Technicians; Civil Emergency Personnel.

The "state of the art" for developing and providing materials of instruction for the range of courses offered in this fourth category is almost as new as the concept itself.

You have given some attention in these hearings to the possibilities of involving the private sector in vocational education. I would like to sketch briefly for you some of the opportunities and advantages of such an involvement.

Let us recognize that we live in an educating society. Every trade and profession, every branch of business and industry is trying to professionalize its work, to up-grade its members, to get the job done more effectively and efficiently. In this strong and new trend the private sector has an important role. The commercial publisher, in particular, has the significant task of bridging between the university and government, between industry and the schools. The publisher's function is to organize, package and disseminate information in useable forms. New information, however vital, has no value if it is not made known. The publisher's role is to make it known; to get it to those who need it and those who can use it.

In the entire field of education and training, no other agency has, in like degree, the skills required for packaging and disseminating information. The publisher, then, is given the opportunity to translate needs into instructional material—to offer both the employer and the educator the opportunity to find—in one place, at one time—the information which they both need to assure the ultimate employability of graduates.

This goes on—from state to state. The members of this Committee would be amazed at the amount of reliable data that is collected by the private sector and which could be utilized to great effectiveness by the designers, on the state and national level, of innovated programs for vocational education.

By making it possible for a state or locality to consider cooperation with the private sector, you would significantly cut the time that is involved in the development of new course material. You would help assure the dissemination of information, since the private sector is uniquely equipped to transport information developed in one area and adapt it to the needs of another.

I am not suggesting that the private sector is in competition with—or should be in competition with—the educator or with government. I am merely suggesting that the private sector is going to continue developing new methods and new techniques; that the employer is going to continue refining and increasing demands on his prospective employees. It is to the advantage of education in this country and the development of future technology that the highly sophisticated tools developed by the publisher and by the employer be combined with the expertise of the educator to provide the optimum realization of the goal which we all agree is of primary importance to the future of this country.

I would suggest that the legislation proposed provide guidelines to the states that, as recipients of Federal Funds, they *may* work with the private sector in order to utilize existing expertise in necessary research, editorial capability for the creation and distribution of materials of instruction which could animate national awareness and serve national needs.

A disclaimer is necessary here. I do not wish to infer that individual states have not been diligent in their uses of Federal Funds. Several states have created Curriculum Guides and Teacher's Instructional Materials which are of great value and indicate thoughtful use of sources available to them. Some states have provided and are distributing materials of instruction.

I would question *how rapidly* measurable results will be achieved by the efforts of 50 states—whose diversity in experience and need is so distressingly apparent—compared to the rate of creation, testing and distribution which is currently achieved by the Educational Publishing Industry, composed of over 100 experienced professional establishments.

The amounts of research, evaluation and experimentation needed to accomplish the goals for training our youth in the *new occupational opportunities alone* is massive. One must look to the results achieved by branches of our military in training and technology, and at this point I would cite the conference held in June of 1966 sponsored by The Department of Defense and The National Industrial Conference Board. At this conference, the existing "state of the art" in military training was demonstrated to those members of industry concerned with over-all and far-reaching problems of communication for better training.

One must also look to leaders in Educational Psychology who are discovering how we learn *what*, under *which* circumstances and *when* a student is most receptive to handling specific concepts.

I cite these two examples as typical of the cooperation necessary from all segments of those concerned with communication and the industries to be served. It is this kind of research and consolidation of efforts which could be anticipated if the private sector could be clearly a partner and provide services.

I would ask you to consider the addition of language in your improvements of the existing law which would provide opportunity and encouragement for the private sector to:

participate in necessary research on a contractual basis.

provide those editorial services necessary in the development of systems of instruction.

test the validity of such concepts and systems, involving industry when advisable.

and finally, to utilize and integrate the resources of the publishing industry for most effective promulgation of innovative materials to local and national (and in some instances, international) markets.

In conclusion, I should like to share with you some of my fears and hopes. I am fearful that the urgent need for professionally prepared materials of instruction in our new vocational categories will not be answered *alone* by the efforts of a few State Boards of Education. I am fearful that the demonstrated inability of some states to *share* their findings will impede the growth of vocational training, and especially in areas of vital importance to those changes we are observing in our society.

I am fearful that industry, which is obviously the prime employer of the end-products of this system will not be involved in the entire process.

Looking at past experience I am fearful; looking to the future, I am hopeful. I am hopeful and am confident that should you decide to implement legislation so that encouragement is given to the private sector, programs of instruction will emerge suitable for effective use on the local and national scene. I am confident that those productive and pervasive powers of competition and cooperation will accrue—both locally and nationally—from an enlightened involvement of the private sector.

It has been a great honor to be with you today. I earnestly hope that my comments and responses to questions you may wish to put to me will help you in your deliberations.

Mr. CUSHING. At the bottom of page 1, I use the expression, "extra-secondary comprehensive community college." If I am guilty of coining a phrase, I did so because the word "postsecondary" connotes something which is different than "extra-secondary."

I would say that the whole range of opportunities presented to our youth is not to be delineated by academic artificial barriers; that the opportunities and the choice that a student makes at any point in his life may happen at grade 10, 11, or 13 or 14, or later; that we must be responsive to the flow of a student's interest in life and the skills that he is trying to acquire. Therefore, I have used the word "extra-secondary."

Although the company that I represent presently is primarily interested in defining what is new and innovative in the extra-secondary or postsecondary area, in the very near future we shall become necessarily concerned with the kinds of training that students must have prior to coming to an extra-secondary educational experience.

I would like to explain, if I may, Mr. Chairman, on page 2, that I agree with the concern you have expressed that we broaden the use of the innovative, specifically in vocational education.

There are many innovative techniques which the modern publisher and industry are using to reach students who have not been reached heretofore. I cite specifically the use of audiotutorial methods, wherein a student who may be more responsive to the verbal rather than the written has an opportunity to combine the verbal, the written, and the visual, all at one time, in one place.

There are several good examples of this kind of work going on around the country and my company is specifically involved in such a program.

We are involved in this at a research level, and we find that even before the materials are completed, there is sufficient interest that some 25 schools wish to install it.

The other concept I would like to develop relates to the quotation "the market follows the book." Or, to express it another way, quite often, it seems to me at least, educational advancement is a corollary of the availability on a broad scale of educational materials.

At the bottom of page 2, I touch on the marketable skills. Dr. Striner, whose testimony we have just heard, impressed me so much. He touched upon this point, and I think it should be emphasized. In the new technologies and in the new classifications for employment, opportunities are massive; the challenge to keep up with the new job classifications alone, is also massive.

Earlier this morning we heard some dialog and testimony about communication skills. I don't think these were the precise words used, but in my testimony on page 4, I note that the leaders of the comprehensive community colleges seem to be agreed that, when a student comes to them for training, vocational training is not enough. This student must be trained in communications skills; verbal abilities must be polished so that this person can communicate with his foreman, can, indeed, talk to a counselor and can, indeed, be an applicant for a good job.

Further, the communications skills programs I allude to, and those which are typical in the comprehensive community college, are those which relate specific writing tasks to the area in which a student is going to be occupied. There is a very rapid change in the method of teaching communications skills. In Mr. O'Hara's State there has been some interesting studies as to what motivates students to communicate, and what barriers exist to their writing skills. And, interestingly enough, from the statistics gathered, it looks as though the barriers are socioeconomic ones rather than ones of intelligence.

Also on page 4, I mention our community colleges on which, fortunately, the sun never seems to set.

The community colleges throughout the country have rendered particularly good service to the person who is a dropout, giving an opportunity to reenter the educational process and become retrained at a higher level, based on prior experience and the maturity he has developed.

The concern of the committee as voiced this morning is the need to relate these dropouts to the requirements of industry in the community.

At the bottom of page 4, I attempt to categorize job opportunities. As we look at the technologies and the new opportunities, they lie in four fields: Those related to health; those related to business; those related to engineering and science; and a fourth category which seems to be of enormous excitement in our country today—public service occupational related.

I would like to give you examples of the types of courses, the new types of vocational opportunities that are arising in the first three categories. In the testimony this morning the distinguished Congressman from Montana gave us some vivid examples of some of these opportunities.

In the health-related areas we know of the need for paramedical technicians to assist the professional medical specialists, freeing them from administrative tasks.

In the business related, we only have to look as we did this morning at the electronic data processing industry to see the opportunities that this technology is providing. As an example of change in the approval of business training, our company is studying changes in the teaching of typing. How are students taught typing? What else can be taught other than just a manual dexterity skill? Is it possible to involve a student in typing at earlier grades, so that the student can perceive ways of solving communication problems?

The fourth category, which I refer to as public-service occupations, is enormously exciting. Recently I was privileged to be invited to attend the conference called by the President on prevention of crime. We explored the areas and needs for advanced training and attempted to define the problems of training future police officials, administrators, and peace officers. The attendant problems of community relations of the police department were emphasized by many of the 780 people attending this first Conference on Crime Prevention.

In the area of fire safety and prevention, there are new training techniques to be brought to bear. There are also many areas of training needed by fire officials in such matters as recruiting volunteer services.

On page 6, Mr. Chairman, I would like to clarify two points. Earlier in the testimony this morning reference was made to the need for bridging between university and government, between industry and the schools. I am saying on page 6 that your American publishing industry is in partnership with industry itself, the final consumer, the employer of our youth and talent in the country and that the publisher is in the unique position of bridging these areas.

I would also like to explain, if I may, the use of the word "package." We publishers think in terms of a series of elements, if you would permit me, a system of materials of instruction from which the teacher can select.

On page 7, I made a statement regarding the way in which time could be reduced by the involvement of the private sector in developing materials for new courses and the new curriculum for training in the new technologies. I think a word of explanation may be in order here.

There is information available from industry to the publisher and the publisher could use this material by sharing with the educator and perhaps diminish the duplication of effort which we observe going on in the several States which prepare programs.

Also on page 7, I say that I am not suggesting that private sector is in competition with or should be in competition with the educator or the Government. What I am suggesting is that we implement a way of creating a range of materials from which the educator can select and choose and adapt as he needs, that industry should also be involved in this process.

Mr. Chairman, in the interest of time I have gone through my testimony rapidly.

In conclusion, I would like to ask you to consider the addition of language in your improvements to the existing law which would provide opportunity and encouragement for all interested elements in the private sector.

Mr. PUCINSKI. Mr. Cushing, you have made an excellent statement and I would not want you to feel you are short in your time. You go ahead and take the time you need.

Mr. CUSHING. Thank you very much. I am asking for language which would give encouragement for all interested elements in the private sector to participate fully and productively with the States and the Federal Government in the development of more effective vocational education programs.

In conclusion, Mr. Chairman, I would like to share with you some of my hopes and fears. I am fearful that the need for professional materials in our new vocational categories and in the new job opportunities may not be answered alone by the efforts of a few States. I am fearful that the inability, which has been referred to by some witnesses, of the States to share their information among themselves will impede the growth of vocational education, especially in accelerating the innovation which seems to be so desperately needed. I am fearful also that industry, the prime employer of the end product of our vocational education system, may not be sufficiently involved in the process of training.

Looking at my past experience, I must be a little fearful. And yet, looking at the future, I am hopeful. I am hopeful that, should you and your committee decide to implement legislation which would give a clear signal for the private sector to muster its forces, that the private sector can bring into play those pervasive powers of competition and cooperation which will accrue locally, nationally, and even on the international scene, from the involvement of the private sector.

It has been a great honor, Mr. Chairman, to be with you today, and I earnestly hope that my comments will be helpful to you in your deliberations, and I look forward to answering any questions you may wish to put to me.

Mr. PUCINSKI. Thank you very much for this very excellent statement, Mr. Cushing. I think you have certainly brought to our committee a distinguished background in this field and have given us some excellent guidelines. I would hope that in 201 you would find language that would, to a great extent, alleviate the fear you expressed about private industry being left out.

It is quite possible that we may want to strengthen that language and make sure there is no question about bringing in private industry, but I think that we have had ample testimony before the committee here indicating that perhaps one of the weaknesses in the program has been the exclusion, to a great extent, of the private sector. It would be my hope that we would be able to correct that with legislation before our committee.

Mr. CUSHING. This is to be hoped for and it will be very, very welcomed, I know.

Mr. PUCINSKI. I am glad you made this long trip from California to Washington, because yours is one of the most forthright and significant statements that we have had before the committee, particularly in stressing the development of publications in this field. I repeat that in 201 I think that we might be able to find substantial encouragement for this kind of an approach to these problems.

I had several questions, but I would yield to my colleague from California, Mr. Hawkins.

Mr. HAWKINS. Thanks, Mr. Chairman. I, too, am very much impressed by the statement of Mr. Cushing and particularly because it, I think, emphasizes an aspect of which we have had very little testimony up to this time. This is the involvement of the private sector. I don't know whether there is the time to try to pin Mr. Cushing down as to the best way to do that, but certainly as we move along the development of the bill, we hope in this session possibly to avail ourselves of his very fine knowledge of this field.

I would like to ask Mr. Cushing if business advisory committees, that at least I thought were functioning across the country, particularly in my own area, whether or not these committees might be the means of this involvement, that you would recommend; or should it be at the Federal level or should it be at the local level or should it be at both? And if so, in what way can we strengthen this part of the program? Just what would you advise with respect to the industry that you specifically represent, the publishing industry?

As you say, I think it bridges the gap between the two, the Government on the one hand and private industry on the other, because obviously if there is to be a connection, the terms that are used in connection with the courses and all of the published material must be up to date and must be subject to updating, as we have been talking about the subject itself.

I think I have suggested a combination of questions. You can answer them as you see fit.

Mr. CUSHING. I think the first part of your question, Mr. Hawkins, was perhaps covered by the earlier testimony by gentlemen who have apparently served on such boards. I would say that the advisory boards are as strong as the State education system wishes them to be and involved as much as they wish them to be.

I know that in some of our California localities we have a deeper involvement, I know that as we travel around to other parts of the country the industrial voice is not heard, and this, I think, would be expected.

I think that——

Mr. HAWKINS. May I interrupt just at that point to ask whether or not there is a reluctance on the part of the private industry to become involved or whether or not it is a failure to actually issue the invitation? In other words, is there any feeling that because it is a federally funded program, that it should somehow avert or not be recognized by private industry?

Mr. CUSHING. Oh, no; sir. I would not think so. I would not think that industry's attitude would be this way. I would think that perhaps the way in which the States have moved ahead to develop their programs, and I am not in any way criticizing the States, I am saying that I think they have a limited capacity, that they do not have the research and editorial talents which are found among a hundred private enterprises in great depth.

My feeling is that the States get their mandate and do the best they can, passing this down to the local community, and that local industrial leaders are very much concerned.

There was reference earlier to a man who ran a big printing company and was reluctant to hire graduates from the graphic arts divisions of vocational schools. I had a comparable experience last Wednesday.

The problem went something like this. Some pieces of new equipment in a large modern printing plant, Mr. Chairman, will cost $2.5 million a unit. It is probably not reasonable that in the vocational school this kind of equipment would be available.

I asked a friend in the industry how he was recruiting employees. He said that he finally decided that it's less expensive to train somebody "off of the street" rather than to try to untrain vocational students who have learned by antiquated methods and have gotten certain sets of attitudes about what a printing operation is about—all, I might add, obsolete.

Modern printing is highly automated. Such development as the web press, and improvements in photo engraving, have dramatically altered this industry. I asked my friend, when the students are at a certain point in the training, would you be willing to contract with the State to have these students come in and put them through a course of study? Would you be willing to do this on a contractual basis?

He said he would welcome such an opportunity and would do it as a service to the industry.

I hope that answers your question.

Mr. HAWKINS. Yes, it does. Thank you.

Mr. PUCINSKI. Perhaps you could throw some light on a question that bothered me.

We have vocational education programs all over the country and yet I find that private industry is getting into the training business more and more. Some of the big corporations of America are setting up subsidiaries that are in the training business and they are getting contracts under the Manpower Development and Training Act, various other Government programs, and the poverty program.

I had, for instance, one particular one in mind, though we could name many, many in Chicago. The Brunswick Corp. which traditionally got its start building pool tables and bowling alleys, now has an excellent subsidiary in which they are training, teaching young women in various fields of medicine: laboratory aides and cardiac aides and various others. They are taking the young women who are unemployed, young women who are literally at a dead end, and in 18 weeks' training these young women can get a job that pays anywhere wrom $100 to $150 a week, which is excellent.

Mr. **Cushing**. That's right.

Mr. **Pucinski**. And they are opening up fantastic opportunities, particularly for the minority groups that up to now had just been discarded and forgotten, ignored, and let their problems multiply.

What I cannot understand is why can private enterprise do this and do it effectively? They not only recruit the girls, train them, but place them after they have trained them. So you can see where enrollment in one of these courses becomes a highly desirable operation for a young woman.

What I cannot understand, is why can't the vocational educators in the public sector come up with programs like this? What is their problem—is there a built-in inertia or somethiing in the vocational educational program? Is it tied down with bureaucracy and is it tied down with rules and regulations, or what is it that would keep the public school from developing this sort of program and yet the Brunswick Corp. can move in with efficiency and do it quickly?

Would you have any suggestion on where we start looking for an answer?

Mr. **Cushing**. First of all, I would like to compliment you on your understanding of this problem.

Not only do we find this capability, sir, in industry, but we have it in an enormous degree in the military. I think that the difference may lie in the subject which was touched on earlier, and that is the capability of the counselors that we have in our vocational education programs. We are not utilizing properly at the counselor level, all of the expertise which is available in the educational psychology field, the kinds of testing which can be done, the kinds of prediction, the kinds of guidance which is necessary.

The Brunswick success is because these people are motivated.

Mr. **Pucinski**. They are what?

Mr. **Cushing**. They are motivated. They are, you said—I think your expression was, they were at the dead end. Is that correct, sir? They are motivated, they realize this is a "way out."

In the military the motivation problem is a little bit easier, but nonetheless it is enormously effective in the way they have to train. After all, the military has these people 24 hours a day.

Mr. **Pucinski**. That is why you see this section 201 as a possible answer? The only quarrel I have with 201 is that this does not go far enough. We—Mr. Hawkins, myself, Mr. Meeds, and several other members—have taken the administration's modest proposal for a $30 million authorization for these demonstration projects and have incorporated that into our initial proposal which was originally introduced by Congressman Perkins and Congressman Meeds, and subsequently by myself and other members of the committee, but in 201 we apparently would be able to find the wherewithal to carry on the very things you are talking about on a demonstration basis, so that we could probably bring new life, new concepts into the vocational educational program.

I would think that your statement on page 6 would fall into section 201. You talk about involving the private sector in vocational education.

Well, under this demonstration projects concept we would be able to expand that and, as you know, 201 does provide a greater involvement of the private sector. Perhaps we might find some answers in there.

Do you think that 201 would serve that purpose?

Mr. CUSHING. Yes, as I have read the bill I think it would. I think this may be a time, sir, to answer—and you have helped me answer—the second part of Mr. Hawkins' last question. He had asked me the way in which the private sector regarded the flow of funds, and what would be the most expeditious flow of funds. I tried to answer the question by saying that the private sector will not quarrel with the method of funding.

I would say that it would be helpful if the Office of Education could alert the private sector to the opportunities for involvement, as they emerge, so that the private sector would work with the States on a competitive basis to provide, sir, those kinds of innovative programs you have stressed. We would certainly get an involvement of the publishing sector to create those new systems of material which we know will work if they are carefully thought out and planned.

Does than answer the other part of your question, sir?

Mr. HAWKINS. Yes. Thank you.

Mr. PUCINSKI. You also talk about the fact that vocational educational teachers are not operating in the 20th century, and I gathered from this statement that you feel there is a need for a continuing inservice training program for vocational teachers.

It is my hope that your own company is going to play a key role in upgrading the teachers themselves.

Now, we have in 7380, and we have in now in the new bills that have been introduced by my colleague from California and myself, a section providing $20 million for establishment of fellowships and exchange programs for vocational education.

I wonder if the lack of this inservice training for vocational teachers and the lack of specific funds for training vocational teachers has not been one of the factors that has contributed to the sort of static status of vocational training. I can appreciate businessmen not looking upon vocational education with a great deal of excitement when they go in the school and, as you have said in your statement here, they find that a curriculum consists of archaic techniques that they have discarded a long time ago. As you have pointed out, they get a student that has been imbued with the obsolete techniques and it takes them longer to retrain this youngster and to explain to him how the things he learned in school are no longer applicable and so they go out and hire by themselves.

I would like to get your comments on the fact that we are trying to set up in this bill money specifically earmarked for training, retraining and upgrading vocational teachers.

Now I might tell you there was a proposal here by the Commissioner of Education who was opposed to this proposal, or at least indicated some lack of enthusiasm because he claims that we can do the same thing in title V of the higher education bill that is pending in the Higher Education Committee.

My own feeling is that by comingling these with the general college program we are again going to doom the vocational teachers to obscurity.

It is my judgment that we ought to set up money specifically earmarked for this purpose so that teachers all over the country would know that such funds are available. They can upgrade their skills and teaching skills, or the teacher who is starting out in teachers college would know that he or she can go into a specific training program to be a vocational teacher.

It is a long question, but I wonder if you would have any judgment on this whole problem of this inservice training, whether or not you think that we should stay with the money specifically earmarked or shall we go along with the Commissioner's concept of pooling all the money and then getting lost in the shuffle?

Mr. CUSHING. Mr. Chairman, let me answer the question by saying what I perceive the needs to be. In answering the question in that way, I think it will be quite clear that I am in support of your suggestion.

It is not only the matter of the specific skill being used in industry that the teacher must be aware of. An example, our automotive industry, and the power mechanics industry generally have changed very rapidly in the last ten years from one of repair service to replacement service. Many vocational teachers are not aware of this; they are trying to teach a student how to repair a part when really all that student must do is know how to select the part and put it into a machine.

The teacher not only has to become aware of what the industrial practice is, but I would also say that another phase of the program is that the vocational teacher must be much more aware that he is performing counseling activities and that he must know more about his students and their motivation.

The teacher should be more alert to the selection process and how students are put into his courses. Mr. Chairman, as we go around the country and look for people who are capable of helping us develop the new materials, we are finding that the master teacher is somebody who not only is aware of the techniques and skills in industry, but he also has that magic ability to communicate with the students, and his success is in direct relationship to the ability he has to communicate.

So what I am saying is, yes, training is necessary, technical knowledge is necessary, but also these people probably must be aware of better teaching techniques and understanding of what they are doing. If you understand an engine, you understand a technique. That is one thing. But it does not mean you are a teacher.

I am saying that the teachers should have both aspects of new types of training—they should combine scientific knowledge of the new and they should also develop the ability to improve their teaching methods and utilize what we know about the students that are in their classes.

Mr. Pucinski. What about comingling of funds for training, specifically section 5 of the 7380, which sets up a specifically earmarked authorization of $20 million and goes up to ultimately $35 million for establishment of fellowship, exchange programs for vocational education teachers and educators?

Do you think we ought to stay with the specific setup here or should we consider comingling this with other training programs?

Mr. Cushing. Sir, it would be my strong feeling to go ahead with your proposal as presented. If teacher training in this field is to be effective, it must receive this emphasis——

Mr. Pucinski. You certainly suggest a very novel approach to vocational training here in suggesting that we have a continuing education concept rather than stopping at some point that we call graduation day—I think that you have something there. I think there is a lot of merit to that. I think that with the changing technology and with the fantastic pace that American technology is advancing, I am intrigued by your suggestion that there should be a continuing educational process for work. I think it gives him self-respect knowing that he can go back as new technologies are developed in a particular skill, that he like a doctor or dentist or a lawyer, is going to be kept abreast of these new technologies. I think that a success like this certainly ought to be looked at very carefully by the educators in vocational education, because this might be the answer to many of the problems we have in vocational education. Earlier today Mr. Meeds asked one of the other witnesses if he had suggestions on how we can upgrade vocational education.

I think that this is one suggestion that ought to be considered very carefully, because it would give the employer an assurance that his technicians, his craftsmen, are being kept fully advised of new techniques.

It would also put a responsibility on the teacher, the teacher would have to keep abreast of the new techniques. All in all, it would seem to me that it would probably give this whole country the kind of thrust and quality production that so frequently we hear people say that we have lost. So I would like to congratulate you for this unique approach. I think it does offer an area that educators ought to certainly experiment with and see what they can do with it.

All in all, I thought your testimony was very good, and one final point. You stressed the four areas of education and I think that my colleague and I readily and quickly agree with you that this fourth point of yours, public service related occupations, there is practically nothing being done in this field.

Now, again, the administration has come before this committee with legislation which is pending before the Higher Education Subcommittee—they are proposing that we set up some category for training public service employees. But again the emphasis is on the college level. I despair the fact that there are apparently people in high positions of our Government who cannot understand that eight out of 10 kids in this country will never go to college.

Now, many of the public service skills can be developed through vocational training programs, as you have quite properly pointed out. When you consider that the highest increase in job opportunities in America has been in the Government sector—as a matter of fact, if we were to pull out the new jobs that have been created at the city, county, State, Federal, level in the last 10 years, just pull those out, we will find that the erosion of job opportunities due to automation has actually created a job deficit in this country.

Now, we talk about the rise in the labor market, but I believe that rise is being attributed to a great extent to the increase in Government activities and Government-related positions. And I must congratulate you again for the fact that you have raised the point you have. I think you are the first witness who has come here and put it quite in those terms.

Here is a tremendous opportunity for vocational education in preparing young people for public service jobs, and yet I would like to point out there is practically nothing being done in this field anywhere that I know of.

Do you know of any place, Mr. Hawkins?

Mr. HAWKINS. Not offhand, I don't, Mr. Chairman. If you would yield, may I also comment on that, because I notice that police science was included, which suggests that this obliquely enters into another related field with which we are concerned in many of the urban areas. As you probably have experienced in Chicago, certainly in Los Angeles we have, we have experienced a great controversy about the training of law enforcement personnel, whether or not new concepts should be used in this field in order to perhaps meet the challenge that what we are doing too often is to train just what are referred to as cops and not a new concept in law enforcement.

I was very pleased to see this as one of the categories listed, because ordinarily training to become a policeman would be considered just an ordinary field which we have learned everything there is about it, and we have, I think, left it at that and consequently I think we are running into trouble in urban centers. I was very pleased that this suggestion was made by Mr. Cushing, to include this as one of the categories that probably could be updated.

Mr. PUCINSKI. Well, as you can see, you have made a very significant contribution to our committee today, Mr. Cushing. I am grateful to you and your company for taking time out of your very busy schedule, traveling all across the country. But I can assure you that the trip was well worthwhile as far as we are concerned.

You have given us some concepts and ideas and some specific suggestions, which I am sure will strengthen our ability to deal with this problem in the form of more positive legislation. I again want to thank you and I want to thank Mr. Hawkins for having so qualified people in his area who know the problem, but more important, come up with some positive suggestions on how to deal with the problem.

Thank you very much.

The committee will stand adjourned until further notice.

(Whereupon, at 12:35 p.m. the subcommittee adjourned, to reconvene at the call of the Chair.)

(The following material was submitted for the record:)

STATEMENT BY THE NATIONAL EDUCATION ASSOCIATION

The National Education Association is grateful for the opportunity to present its views, on various proposals to amend the "Vocational Education Act of 1963," to the members of the General Subcommittee on Education of the Committee on Education and Labor of the United States House of Representatives.

Federal financial assistance for local schools came into existence with the enactment of the Smith-Hughes Act for vocational education in 1917. The Congress had previously demonstrated an interest in education through enactments that permitted the schools to use revenues from lands set aside by the Government for this purpose. However, the Smith-Hughes Act marked the first time that Congress made direct grants of funds to the local schools.

The significance of the Smith-Hughes Act goes far beyond the field of vocational education for it established a pattern which has become central to nearly all educational enacements that have followed. As President Johnson said on the anniversary of the signing of the Act, "One of the most important accomplishments of the Smith-Hughes Act was the establishment of cooperative activities between the Federal Government and the States."

From this beginning vocational education has experienced steady growth and expansion and has provided thousands of young people with an opportunity to develop productive, satisfying careers. Two world wars, phenomenal industrial growth and technological development almost beyond belief made necessary an extensive expansion of the Act in 1963.

Support of vocational education by the National Education Association, since these early beginnings, is a matter of record. The importance NEA attached to its support of vocational education in the past is indicated by the annual passage of a resolution devoted exclusively to support of this area of education.

Strong NEA support of the Vocational Education Act of 1963 is found in a statement to the House Education and Labor Committee by Dr. Hazel Blanchard, NEA President at that time. Mrs. Blanchard said:

"We believe that vocational education is an essential integral part of the total educational picture . . .

". . . We urge that the present George-Barden Act be retained as permanent legislation and that the expanded program as proposed . . . should be in addition to present, long-established programs. The $23 million increase, as proposed, will not be adequate to achieve this broader program. We urge the expansion of vocational education offerings without endangering the permanent, well-established and demonstrably successful programs."

Evidence, to date, abundantly justifies the program as it is being developed under the 1963 Act. Continued over-matching of federal funds by the States and localities is vivid evidence of the truth of Dr. Blanchard's statement in 1963 when she stated to members of the House Education and Labor Committee that the amount of the authorization under the Act would be inadequate.

Continuing growth in our economy, increasing urbanization, the continuing increase in the mobility of our population and new technology have resulted in a demand for manpower which can be supplied only if the Nation's schools can constantly improve their educational programs. The rapid change in technology makes obsolete our former plan to train a person in a single highly skilled craft or for a career in a single vocation. It is now necessary to train people in a cluster of skills that will enable them to adapt quickly to change in the labor market.

Our tendency in the past to separate what has been known as, "general education," and vocational education now penalizes both those students who are college bound and those who plan to end their formal education with graduation from high school. Reliable data show that 8 out of 10 students presently enrolled in the 5th grade will be seeking employment with less than a four year college degree. The relationship between employability and education is well documented.

The foregoing factors make it abundantly clear that public education must develop a far greater degree of flexibility. The very best possible, "general education," must be required of all our young people. Adequate provision must be made for the 2 out of 10 who will receive a bachelor's degree and the vocational education programs of our schools must be vastly expanded to provide both the quantity of training demanded and the degree of flexibility that a rapidly changing industrial economy demands.

Various proposals have been made to amend the 1963 Act. In general they propose to (1) increase the total authorization of the Act, (2) separate the work-study program, and the residential vocational schools program providing an authorization for each, (3) establish a fellowship and exchange program for the training of vocational teachers, (4) provide exemplary and innovative programs or projects in vocational education, (5) increase the authorization for the practical nurses training program, and (6) provide a number of technical amendments to improve the Act. The views of the NEA on these specifics of the proposals are as follows:

1. Increasing the authorization of the Act from $225 million to $400 million is an absolute necessity. The size of the task and the significance the objectives of the Act hold for the welfare of the Nation make this increase imperative.

A 5-year authorization for the Act is strongly supported. Long range planning in terms of programs, personnel and facilities cannot be accomplished, with the desired degree of effectiveness, with an authorization of shorter duration. The program has proven its value, the unaccomplished part of the problem is squarely before us—there should be no hesitancy on the part of the Congress to provide this authorization.

2. Separating the work-study program and the residential vocational schools program represents sound judgment and we strongly support the proposal.

An authorization of $30 million for the work-study portion of the program is a modest request for this highly valuable portion of the proposal. The number of young people who need this type of assistance has been well documented. Our ability to utilize the efforts of these young people has been demonstrated repeatedly. There should be no delay in making this provision a reality.

The proposed authorization of $10 million for fiscal year 1969 and for the three succeeding fiscal years for the construction and operation of residential vocational schools is strongly supported with one exception. In our opinion the authorization of $10 million for fiscal year 1968 is woefully inadequate.

Inadequate funding and in some instances failure to fund authorizations for residential vocational schools in the past have prevented realistic progress from being made in this part of the program. The cost of a vocational school requires thorough planning of the location of such a school in terms of the residence of its students. It is unrealistic to think that in locating vocational schools they will be accessible to all young pepole who need vocational education. Thus, the need for residence facilities, for those who do not have and obviously will not have access to a vocational school, is crystal clear.

Under appropriations made to date it has been possible to provide only about six such schools for the whole Nation. The need is clearly demonstrated and there should be no hesitancy in authorizing and appropriating funds that will adequately meet this area of need which, in our opinion, is most severe.

Presently there are approximately 750 area vocational schools throughout the country, about one-half of which have been constructed since passage of the 1963 Act. It is estimated that the number (750) now in existence needs to be doubled by 1970 to meet the need that is projected. It is hoped the full authorization requested in the legislation will be made available.

Provision in this section of the legislation for the use of the funds for planning, construction, and operation; for graduated matching; for the conduct of residential programs without discrimination on a tuition-free basis; for special consideration of youths who have dropped out of school or are unemployed; for course offerings geared to labor market analyses and particularly designed to prepare students for employment; for Federal funds to supplement, not replace, local and state funds; for the preservation of the Federal investment in such school facilities for a period of 30 years is sound planning and strongly endorsed.

3. The heart of any school program is the teacher. The need for qualified teachers in vocational education is a matter of record. Proposals to provide fellowships for training of vocational teachers and for carrying out cooperative arrangements for the training of experienced industrial personnel are sound and we strongly endorse such proposals.

In H.R. 7380 we believe the amount of the authorization for fellowship and exchange programs to be inadequate and the number of teacher fellowships as compared to the number of administrator fellowships to be greatly out of proportion. It is strongly urged that a more realistic proportion of one administrator fellowship to ten teacher fellowships be considered in the final proposal.

4. The principal proposal of the Administration is to provide exemplary and innovative programs and projects in vocational education. This proposal in our judgment is highly commendable and we strongly support its concept. New technology developed through our space programs and our vast industrial explorations have outmoded many of our static vocational programs and the skills of many of those who teach the courses. Innovation, imagination, experimentation, research and growth need to be infused into most of our present vocational offerings. This proposal holds great promise in this respect.

However, I must hasten to point out the proposal holds a danger that in our considered judgment far exceeds the value of this proposal. It states:

"The Commissioner also is authorized to make grants to or contracts with other public or non-profit private agencies, organizations, or institutions, or to make contracts with private agencies, or institutions, when such grants or contracts will make an especially significant contribution to attaining the objectives of this subsection."

The NEA is unalterably opposed to any authorization which will permit the U.S. Commissioner of Education or any employee of the USOE to contract with any private, profit-making agency, organization, or institution to obtain the objectives of this legislation. This proposal carried to the ultimate could result in Federal control of the worst form. It would make possible arbitrary totalitarianism which must be avoided at all costs.

This is not to be construed to mean that education should not utilize the great benefits that industry can supply. USOE can supply the funds for such activity to take place at state, local or institutional levels but direct contracts between USOE and private profit-making agencies is most objectionable and is strenuously opposed by NEA.

It is difficult to understand why such authority is desired. However, it appears to be a well organized plan for almost identical language is contained in the amendments to the Elementary and Secondary Education Act and in the amendments to the Higher Education Act.

Further evidence of this effort is found in the prepared statement of David S. Bushnell, Director of Adult and Vocational Research, U.S. Office of Education, when he appeared before your Subcommittee on April 12, 1967. On page 19 of his paper appears the following statement:

"*Recommended Amendments to the Vocational Educational Act of 1963.*

"The first two full years of program operation indicate that research and development support for vocational and technical education could be greatly improved by amending Section 4(c) to authorize the Commissioner:

"1. *To enter into contracts with profit-making firms.* There are a number of profit-making firms capable of doing excellent research and development work in support of vocational education, particularly in the area of computer assisted instruction, vocational school system design, management and evaluation, and related applications. Many of these firms have been used over the years by the Department of Defense for training its personnel. Their expertise and experience is not now available to vocational education because of the present limitation of Section 4(c) to grants to noon-profit institutions only. We are prevented from exploiting the capabilities of these excellent research and development corporations because of their exclusion as eligible applicants and the restriction to the use of the grants."

This is contrary to the policy almost exclusively maintained in all Federal education programs which the Congress has enacted to date. It grossly violates NEA policy. It is a dangerous threat to American public education. We cannot urge you too strongly, as you consider this proposal, to eliminate this type of language from your final draft of the proposed legislation.

5. We strongly support the proposal to increase the authorization for the practical nurses training program from $5 million to $50 million.

6. In H.R. 7380, Section 6—Technical Amendments, we support the amendments as listed. They will permit more effective implementation of the Act and should be made a part of the final proposal.

The National Educational Association is grateful for this opportunity to express its views on these various proposals to amend the Vocational Education Act of 1963. Your consideration of our views as you develop your final draft of this legislation will be deeply appreciated.

STATEMENT OF HON. EDWARD J. PATTEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. Chairman and members of the Subcommittee on General Education, I will match my support of higher education legislation with any member of the House. My voting record shows my strong interest and I will continue to support such legislation in the future, for most of the future leaders of our country will come from our colleges and universities.

However, I believe the nation is making a mistake by placing so much emphasis on the importance of attending college, that the vocational and technical needs of our country are not receiving enough attention and help.

The need for engineers, chemists, teachers and other professionals is important, but so is the need for workers in the "blue collar" field—especially in this era of automation. More electricians, machinists, welders, mechanics and other skilled workers will be needed than ever before. That is why vocational and technical training should be expanded.

America benefited from the Vocational Education Act of 1963—which provided federal aid for construction of vocational education facilities for the first time in our history. This was a great breakthrough and I am happy to report to this subcommittee that the Legislature in the State of New Jersey has approved legislation providing up to 25% of vocational school construction costs. This was chiefly due to the interest and leadership of State Assemblymen Norman Tanzman and Robert N. Wilentz, who introduced the measure and Freeholder Frank M. Deiner, Jr., who urged state action.

The federal aid for vocational education received by New Jersey has had a "strong impact in the state," according to Robert Worthington, Director of N.J. Vocational Education.

And that federal assistance has been substantial:

In 1965, for instance—the first year federal aid was received under the Vocational Education Act of 1963—N.J. received $2,898,203; $4,203,065 in 1966; and is scheduled to receive $5,340,073 in 1967.

If section 2 of the proposed bill—H.R. 8525—is approved—and I feel it should be—N.J. would receive an estimated $9,697,501 in the 1969 fiscal year.

Middlesex County, N.J.—and I represent 22 of its 25 municipalities—has three vocational and technical high schools and construction is being planned for a fourth one in East Brunswick, urgently needed because of the growing industrialization of the general area.

If the increase in federal aid requested in section 2 is approved, Middlesex County will receive about $2,506,150 for its fourth school, instead of the estimated $1,506,150.

Another attractive feature of the proposed bill is federal aid for persons who plan to make vocational education teaching a career—as well as assistance for experienced teachers. This training would improve and strengthen the quality of instruction and also benefit students.

I also support very strongly restoration of Work Study funds not included by the Administration. The results of this program have been commendable and I am convinced that unless Work Study funds are provided, those interested in future vocational careers would suffer.

Approval of the proposed bill would benefit all segments of the population and has my support.

Please insert this statement in the official record.

STATEMENT OF THE FRANKLIN INSTITUTE

(Attached with the letter to Honorable Carl D. Perkins, Chairman of the Committee on Education and Labor, General Subcommittee on Education, United States House of Representatives, Washington, D.C.)

The Franklin Institute is one of the oldest Vocational Education centers to be founded in the United States. Its initial purpose was to fill a regional void in this area, and it has consciously endeavored to meet new Vocational Education demands as they arose. Having provided this type of leadership since 1824, it seems reasonable that The Institute continue to direct its attention to the further development of its role in Vocational Education in 1967 and the years ahead. In its early days, The Institute sparked development in this field by founding the first high school in Philadelphia as well as the first engineering and architectural schools in the State of Pennsylvania. Today, The Institute continues to be involved in Vocational Education and Adult Education by offering specialized workshops and seminars for these groups in such varied subjects as: Photography, Ham Radio Theory and Code, Astronomy, Techniques of Modern Computers and Electronics.

The Institute has periodically sought to stimulate thinking within the field of Vocational Education. Certain conditions today, once again, necessitate such an action. The problem currently facing this Nation is one which could have serious consequences. Simply, it is the ever-widening gap between available Vocational Education opportunities and the enormously greater need for them. This gap is characterized by at least two general trends:

1. The ever-increasing number of people who require Vocational Education; and
2. The possible withdrawal of support from agencies which have dealt effectively with this problem in the past.

The immediate means by which we can combat these and other problems is basically the wise allocation of adequate support to those agencies and institutions devoted to planning and extension of Vocational Education opportunities.

The position of The Franklin Institute in this situation can possibly provide enlightenment to the problem in general as the decisions currently being made at The Institute, with regard to its role, generally parallel those which will be made throughout the field. The present interest of my organization centers around the following three concerns:

1. The implications to private non-profit institutions of increased support to public educational agencies for Vocational Education.
2. The need to individualize Vocational Education to elimate geographical, economic and other barriers to participation.
3. The need for training more Vocational Education instructors, counselors and others in related specialties.

The importance of these three concerns is that Vocational Education has come to a significant turning point in its evolution. Our advancing technology has created an extreme need for large numbers of technical and other personnel. Fortunately, this technology has also provided us with the means by which we can develop new approaches to instruction. The question is not whether the public is ready to support such developments, but rather at what level and through which agencies and institutions.

The Congress has responded to the public need by not only providing funds, but also in assuming the leadership in exploring more effective means of meeting the Vocational Education needs. As the resulting Federal programs grow, therefore, it seems reasonable that attention be called to not only what ours and other existing institutions have accomplished; but, more importantly, to examine their potential for the future.

STATEMENT BY EDWARD W. FOSS, PROFESSOR, CORNELL UNIVERSITY

First, I wish to state that the amendments in this act will have high value in at least two programs with which I have been, and continue to be, concerned:

(1) The "Fellowship and Exchange Program" will be of great value in the training of teachers and educators in the field of Agricultural Mechanics and Technology.

(2) The "Residential Vocational Education School Program", if applied to new facilities and additions to the New York State Conservation Camps under contract with the N.Y.S. Division for Youth, could greatly improve the job opportunities for the youth who attend these camps.

Second, I propose that a further broadening of the Vocational Education Act of 1963 is needed to attract, train, and place a greater portion of this nation's youth.

In particular I urge that the Act be broadened to accomplish to a greater degree the following objectives:

(1) To motivate, train, and develop each youth to attain the highest level of occupation for which he is capable.

(2) To provide more research and pilot programs toward developing a coordinated school curriculum that will assist youth in determining their occupational choice.

(3) To provide more emphasis in programs concerned with both entry aspects and up-grading opportunities within "occupational families".

(4) To provide new and/or improved job placement and guidance services for graduates of vocational and technical pre-service and inservice training programs.

To accomplish these objectives, the following appear to need further exploration and if practical, general implementation:

A. During the past decade, great progress has been made in other disciplines, such as mathematics, science, English, and social studies through coordinating each curriculum from kindergarten through the 12th year. There appears to be at least an equal, if not greater need, in providing a coordinated occupational and vocational sequence through most, if not all, of the same grades.

(1) Professor Willa Norris of Michigan State University, Division of Pupil Personnel Studies, has researched the subject and written a book *Occupational Information in the Elementary School*. This discusses the values of, and methods used in, providing occupational information for pupils in grades Kindergarten through 6. The program provides a logical development in discussing occupations of parents, workers within the school community, the neighborhood, and the village or city. Included within grades 5 and 6 are the beginnings of self analysis and a comparison of this analysis with certain occupations and occupational families.

(2) Within grades 7 to 9 or 10 an improved and coordinated program for exploring occupations via the laboratory and shops is needed for both boys and girls in the four general areas of industry, business, home economics, and agribusiness. These programs must be coordinated with the occupational information secured in the elementary grades and provide an orderly development for the youth toward both vocational curricular grades 10 or 11 to 12 and the academic program for occupations which require college attendance.

(3) Vocational-technical programs for grades 10, 11, and 12 should be coordinated and articulated with the prevocational courses of grades 7–9 or 10. In addition to programs for the handicapped, single skill occupations, and skilled occupations; courses should be made available in the shops and laboratories for the college bound youngster. Studies of vocational graduates of New York and Northeastern states secondary schools indicates that 10% of these graduates go on for further training.

From two standpoints special secondary vocational and two-year college technical programs should be designed for those college-bound youngsters that desire these courses:

(a) Many high ability youth require a shop or laboratory program along with academic subjects to motivate them and/or to assist them in developing a life goal. Often, this goal develops on a step-by-step basis up the many levels of an occupational family.

(b) The manipulative and cognitive skills developed during either or both secondary vocational and 2-year college technical programs are vitally needed by teachers of vocational subjects and also managers and supervisors of skilled and technical employees. Unless prospective teachers and supervisors secure this type of training during their secondary and/or 2-year college years, they are often limited in such capabilities, because 4-year colleges are eliminating these manipulative skilled courses from their curriculums.

B. Where past vocational programs have been concerned mostly with a specific program—machinist, typist, farm operator, carpenter, etc. there appears to be need for greater stress on an educational program that points both to an entry occupation and the path toward the higher level of occupations within the occupational families. Minor developments have taken place in setting up "metal trades" rather than "welder," "machinist" and "machine operator." In a similar manner "building trades" have been explored (often with "building maintainer" as a first step) rather than heavy concentration on carpenter, plumber, electrician, etc. Greater emphasis is apparently needed in grades 8–10 for explorative, prevocational courses that permit youngsters to "try-out" and "sort-out" those skills and occupations which they like and dislike. As "Related Information" to these courses, the teacher can provide occupational information on the opportunities, needs, and requirements of all levels of occupations within these occupational families from the single skilled through skilled and technical to the professional and administrative occupations.

To sum this point up, the occupational or vocational-technical programs have a great potential to motivate and train each youngster to set his sights one or two occupational levels higher than he might otherwise do. Present and past programs have tended to be based (in my opinion) on the erroneous concept that youth have already made an occupational choice, and training should thereby be given strictly on that occupation and course level. Too frequently this concept, and the implementation and administration of it, has resulted in "dead ending" the education, upward outlook, and occupational upgrading of the high ability (but otherwise disoriented) youth.

C. Opportunity exists for high school vocational guidance offices to set up placement offices and programs for graduates in conjunction and cooperation with State and/or Federal labor or employment offices. They could very well operate for high school and adult education graduates in a manner similar to that of the better College Alumni offices with relation to professional, administrative, and supervisory occupations. Implementation of this concept would be one method of putting into practice a recommendation that Senator William Proxmire and Representative Tom Curtis outlined in a report of their Joint Legislative Committee on Economics.

SUMMARY

I recommend that the Vocational Education Amendments of 1967 include specific mention of these outlined needs and pilot research monies to stimulate state education departments, area vocational centers, and school districts to:

(1) Develop complete K–12 and 14 occupational curriculums including occupational information, pre-vocational courses, and vocational-technical courses in the industrial, agricultural, business, and Home Economics related areas.

(2) Develop curriculums, courses, and guidance information which stress the concept of "families of occupations" rather than complete concentration on specific occupations.

(3) Develop placement and job centers within the area vocational guidance offices—such centers to cooperate with local labor and employment offices.

NORTHERN ILLINOIS UNIVERSITY,
De Kalb, Ill., May 15, 1967.

Congressman ROMAN C. PUCINSKI,
House of Representatives,
Washington, D.C.

DEAR CONGRESSMAN PUCINSKI: On behalf of many vocational educators in Illinois, I am writing to recommend that you recommend a minimum of 22.5 million dollars for the continuation and development of the research support program under the Vocational Education Act of 1963 (Section 4c) for Fiscal Year 1968.

During the three years following passage of the Vocational Education Act of 1963, a total of 39 million dollars was appropriated to stimulate the research effort. As a direct result, a core of competent researchers is being developed and the critical problems in the field have been identified. Forty-four state and two national research and development organizations have been formed and 398 projects have been funded from Federal sources. Twenty-one projects have been to evaluate existing vocational programs and to provide direction for improvement, 119 intensive training programs for about 5000 participants have been conducted to help implement research findings in school programs, 105 projects have studied occupational choice and career development, and 17 projects have dealt with adult education. The largest block of money has been spent on 90 projects designed to update course content of existing programs, provide curriculum direction for new occupations and to improve instruction methods.

It is hoped that the expenditure for public vocational programs will increase in order to provide additional youth and adults the opportunity to acquire the education and training needed to become economically self-supporting. It is only through continuing research, development, and training efforts that increases in the quality of that education can be assured. When it is recognized that the ten millio dollars appropriated for vocational education and development also provides directly relevant information for programs under Manpower Development and Training and O.E.O., the need for proportionately greater investment becomes apparent.

The ten million dollar research appropriation for Fiscal Year 1967 was only sufficient to continue, with reductions, projects begun the previous year. The impact of research is cumulative and the build-up has just begun. Additional funds would allow us to capitalize on the potential in personnel and research findings which are just emerging. New studies should be initiated to: develop new instruments and techniques to evaluate innovation, update teachers and staff, investigate administrative and organizational structures, examine theories of occupational choice, explore large potentials of adult education, and translate research findings into viable vocational curriculums.

The 22.5 million dollars advocated for Fiscal Year 1968 will permit continuation of on-going projects and will provide funds for new research and utilization of findings.

Thank you very much for your time and attention.

Sincerely,

Dr. BEATRICE PETRICH,
Associate Professor, Home Economics Education.

TUCSON PUBLIC SCHOOLS,
Tucson, Ariz., April 24, 1967.

Hon. JOHN J. RHODES,
House Office Building,
Washington, D.C.

DEAR MR. RHODES: We certainly appreciate the fine support you have given Practical and Vocational Education in the past. I now solicit your support for the continuation of the Work-Study Program as provided by the Vocational Acts of 1963. Instead of a decrease in the amount allocated to this worthy project, it should be increased.

I do not think it necessary to mention to you the large number of students that need this financial assistance to remain in school. Vocational students or potential vocational students need this type of support.

I cannot understand why some are advocating that the Work-Study Program be under the N. Y. C. I strongly believe that the schools are in a much better position to select and work with these students. Who is better prepared to select the students interested in vocational education and actually used this type of education than the schools? This program should continue under the direction of the State Department of Vocational Education and the local school districts.

Any help you might give to this would be appreciated.

Sincerely,

L. J. BAZZETTA,
Coordinator of Industrial Education.

MOHAVE COUNTY UNION HIGH SCHOOL,
Kingman, Ariz., April 14, 1967.

Hon. JOHN J. RHODES,
U.S. House of Representatives,
Washington, D.C.

MY DEAR SIR: In reference to the negotiations concerning the transfer of funds from the Work-Study Program, now under the U. S. Office of Education to the Youth Corps, I would like to take exception to this transfer on the following basis.

Since I have been involved with the administration of the Youth Corps program during the summer months; and since I have been in the Distributive Education for ten years; and since I have been active in the Democratic Central Committee of this county for many years; I feel I can speak authoritatively concerning this issue from a financial, educational, and political standpoint. I know that the adminstration of the programs coming from the Department of Education have sound, educational thinking as well as qualitative evaluation requirements and that politically the Youth Corps organization does not hold the political impact that the Work-Study Program does.

When administrated by the Department of Education, 97 percent of the funds appropriated go directly to the students; under the present setup, three per cent goes for administration costs; I am sure, Sir, that if you were to investigate these comparative costs, under the Youth Corps program, it would be somewhere nearer a 50–50 breakdown, which minimizes to a greater degree the purpose for which the money was appropriated.

I hope, Sir, that you will consider leaving the administration of this program as it is now.

Respectfully yours,

KEN CONRATH,
Director, Vocational Education.

AMPHITHEATER CHAPTER, FUTURE FARMERS OF AMERICA,
Tucson, Ariz., May 18, 1967.

Representative MORRIS K. UDALL,
Washington, D.C.

DEAR REPRESENTATIVE: As a superior of the Federal Work Study Program for vocational students at Amphitheater High School for the past two years, I would like to encourage your assistance in continuing this program through the VEA Act of 1963. My understanding is that Work Study will be dropped from VEA 63 and these funds will be in the National Youth Corps next year. I feel that money should be continued in the Federal Work Study Program for the following reasons:

1. Students are selected for and practice in a directly related vocational experience in this program, whereas Neighborhood Youth Corps Programs have students working in such areas as picking up trash and sweeping floors.
2. In the Federal Work Study Program, students are under the direct supervision of vocational teachers and are receiving experience in the areas in which they are being trained in high school.
3. Under Work Study, need is not the only criteria. Hence, students benefit more from this program than they would if they were just on a "poverty-gift", or "make-work" program.

We have had students at our school from secretarial training, Distributive Education, vocational agriculture, and Trades and Industry Education work in their respective fields, and the program has been both an asset to them and to the school. We have also had students under the Neighborhood Youth Corps Program work in some of the same areas, but due to improper supervision and selection, many of them have been terminated or only fill a "make-work" position.

In talking to other educators in the state, I feel that this type of federal money should be spent in the educational areas and supervised by educators, rather than in a duplication program which is questionable in its educational values and return of dollars spent.

Please forward this information on to the committee on education, along with your feelings.

Sincerely,

PHIL W. NEILSON,
Treasurer, Arizona State Vocational Association,
Instructor of Vocational Agriculture.

AMERICAN VOCATIONAL ASSOCIATION, INC.,
Washington, D.C., September 11, 1967.

Hon. ROMAN C. PUCINSKI,
U.S. House of Representatives,
House Office Building,
Washington, D.C.

DEAR CONGRESSMAN PUCINSKI: At the recent meeting of the Mid-Western Governor's Conference, two resolutions were adopted concerning vocational education. Copies of these resolutions are attached.

I believe that you will be interested in the content of these resolutions; and, if possible, I hope you will include them in the record of your Subcommittee's hearings on amendments to the Vocational Education Act of 1963.

Thank you very much.

Sincerely yours,

LOWELL A. BURKETT,
Executive Director.

Sixth Annual Midwestern Governors' Conference, Lake of the Ozarks, Mo., August 27–30, 1967

RESOLUTION XVII

COORDINATION OF PROGRAMS FOR THE DEVELOPMENT OF HUMAN RESOURCES THROUGH VOCATIONAL AND TECHNICAL EDUCATION

Whereas, there is a proliferation of programs pointed at the development of human resources financed by the federal government, many of which bypass the states with the administrative control of these programs assigned to a variety of federal departments and bureaus, and

Whereas, there is a proliferation of state and local agencies administering programs in the area of the development of human resources: Now, therefore, be it

Resolved, That the Midwestern Governors' Conference take steps through their congressional delegations to encourage and strengthen coordination of all federal programs in the area of manpower and human resources development in a concentrated effort to ensure effective coordination of all such programs at the state level.

RESOLUTION XVIII

RESPONSIBILITY OF PUBLIC EDUCATION FOR THE WORLD OF WORK

Whereas, educators of the Midwest have presented to the Midwestern Governors a provocative report on the relationship between educational opportunity and employment potential revealing a need for redirection of education programs, particularly in vocational fields: Now, therefore, be it

Resolved by the Midwestern Governors' Conference, That the public education agencies administered by state and local governments be directed to give more emphasis to the preparation of youth and adults for entrance into and advancement in employment; and be it further

Resolved, That particular attention be given to the needs of disadvantaged youth and adults including a concern for their physical, mental, social and vocational development; and be it further

Resolved, That the educational program be restructured so as to prepare individuals for entrance into a job and for opportunities for continuing education.

NORTH DAKOTA STATE BOARD FOR VOCATIONAL EDUCATION,
April 28, 1967.

Hon. MARK ANDREWS,
U.S. House of Representatives,
Washington, D.C.

DEAR REPRESENTATIVE ANDREWS: I am writing concerning H.R. 7380 and H.R. 6230, proposed amendments to the Vocational Education Act of 1963. As you know, these amendments would liberalize the use of Federal funds under the Vocational Education Act of 1963 for home economics education. I would urge you to support the amendments so that home economics in North Dakota can receive increased Federal support.

More schools are adding home economics in North Dakota. In 1956, 97 schools offered home economics and in 1966, 127 schools. Enrollment was 6,492 in 1956, while 10 years later enrollment in home economics was 11,513. The amount of Federal money available in 1956 was $71,271 (Smith-Hughes and George-Barden) and for fiscal 1966 it was $67,005) Smith-Hughes, George-Barden, and Vocational Education 1963). With the State funds appropriated, plus the Federal funds, local schools received 30.93% reimbursement for the home economics teachers' salaries in 1956. In 1966 they only received 14.70%.

Because rural states such as our do not have the employment needs for women in occupations requiring home economics knowledge and skills (this is the only way Vocational Education 1963 funds can be used for home economics), North Dakota desperately needs liberalization of use of funds as suggested in the amendments H.R. 7380 and H.R. 6230. Only 158 girls and women received training last year in wage earnings in North Dakota. This is a small percentage of the 11,355 enrolled in regular homemaking.

Our North Dakota schools need funds for continuing the teaching of homemaking, as well as home economics for wage earning. The 1967 State Legislature gave no increased appropriation for homemaking instruction. If the funds from the Vocational Education Act of 1963 could be liberalized for use of women and girls in home economics as they currently can be used for training men and boys in agriculture, distributive education, office education, and trades and industrial education, then North Dakota schools could better prepare their women for the dual role of homemaker-wage earner.

I feel it is time for give our girls and women equal opportunity in vocational training as is given boys and men. If we believe that the "hand which rocks the cradle" is the dominant influence of the home, let's give equal support to both the future fathers and mothers of our North Dakota youth.

In view of the above facts, would you please talk to members of the House Committee on Education and Labor concerning reasons why H.R. 7380 and H.R. 6230 need to be passed.

Very truly yours,

Majore Lovering,
State Supervisor, Home Economics Education.

U.S. Senate,
Office of the Majority Leader,
Washington, D.C., April 18, 1967.

Hon. Roman C. Pucinski,
Chairman, General Education Subcommittee, House Committee on Education and Labor, Rayburn House Office Building, Washington, D.C.

Dear Mr. Chairman: We hereby express our appreciation to you for the opportunity to have our Montana colleague, Representative Arnold Olsen testify before your Committee on 17 April.

The remarks you made before your Committee on 12 April as you opened hearings on the Vocational Educational Education Amendments of 1967 are of value to all of us who seek to improve vocational education.

As you stated: "It is imperative that we recognize that it is our responsibility to restore and, in fact, instill pride in sub-professional employment and to work to alleviate the onus of second-class status which has become attached to too many of our young people who will not attain a Bachelor's or Masters degree.

"We must mobilize not only our schools, but industry, labor and all segments of our society to achieve this goal. Improving and expanding vocational education is, in my judgment, one of the most important issues before this Session of the 90th Congress." We heartily agree.

It is especially heartening to learn of your interest in and emphasis on establishing residential vocational-technical education institutions. We believe this is a national need. Further, we believe the nation is fortunate in having the huge resources of Glasgow Air Force Base available as a site for a National Center for Human Resources and Development with a Comprehensive Occupational Education Facility. It is our hope that this facility can be used for the benefit of the entire nation.

As you continue your deliberations and study of vocational education, we hope that you will understand our firm support, and that of the entire Montana delegation, in finding constructive uses for Glasgow Air Force Base.

For your records, we are enclosing some additional data that may be of interest to you and your colleagues.

The attached letter of 13 February 1967 points up the needs for vocational education in the view of the Valley County Selective Service Board. This is especially significant because Valley County has a population of less than 18,000.

The 8 March 1967 letter from Edgar H. Reeder, Chairman and Executive Director, Unemployment Compensation Commission of Montana, describes the success of the experimental Manpower Development and Training Act program for training pilots in Montana. This is significant for the entire nation.

The Great Falls Tribune of 13 April 1967 included the attached article that details the growing needs for trained health workers.

As recently as 14 April 1967, Lawrence F. Small, President, Rocky Mountain College, Billings, Montana, describes the needs for a center for vocational and technical education at Glasgow Air Force Base.

In summary, we urge you and your colleagues to call on us if you feel there are ways in which we can be of assistance in attaining our mutual goals of increasing vocational-technical and skill training opportunities for more of our nation's citizens both young and old.

It is our hope that this session of the 90th Congress will be known as the one doing the most for vocational education. We commend you for your leadership in helping attain this essential legislative goal.

Very truly yours,

Hon. Mike Mansfield, *U.S. Senator.*
Hon. Lee Metcalf, *U.S. Senator.*

UNEMPLOYMENT COMPENSATION COMMISSION, STATE OF MONTANA,
Helena, March 8, 1967.

Hon. LEE METCALF,
U.S. Senator, Senate Office Building,
Washington, D.C.

DEAR SENATOR METCALF: I have your letter of March 3, 1967, asking for some of the details regarding the Pilot training program which was conducted through the Helena School System during 1964–65 under the Manpower Development and Training Act.

I have listed below the answers to the four questions you raised in your letter:

(a) You asked for the names and addresses of the participants. A list of the participants is attached.

(b) Cost—Instruction cost was $9,369; Supervision was $2,600; Contract with Morrison Flying Service for rental of equipment and facilities was $49,016; Trainee allowances were $17,674—Total $78,659.

(c) Attached list of trainees identifies where trainee is presently employed.

(d) Answered by item (c). Income which has been reported by replies to letters which were written to each trainee by our Employment Service Director indicates the income varies from an average of approximately $8,000 to a high as $15,000 a year.

Senator Metcalf, I am sure you can appreciate this training, though it appeared to be quite costly, was most beneficial and did result in some very excellent job openings being filled by the trainees.

You may also be interested in knowing this was the only Airplane Pilot course approved under the Manpower Development and Training Act. We were hopeful of running a second program but funds were not made available because, as you know, the MDTA was specifically designed to assist those workers who lack education and/or training.

In the case of selection standards for participants in the Pilot course, they had to have two or more years of college education and the ability to pass the CAA physical examination. This resulted in the trainees not meeting the standards as was originally intended by the MDTA.

If there is any further information you might need, please do not hesitate to call upon us.

Sincerely yours,

EDGAR H. REEDER,
Chairman and Executive Director.

MONTANA (R) 5013—AIRPLANE PILOT COURSE

Name	Address	Employment and location
Larry Ashcraft	Helena	TWA copilot.
James Belmore	Kalispell	Flight instructor, Toledo, Ohio.
Jared Brandt	Havre	United, flight engineer, Chicago
Mike Buckley	Missoula	Northwest, flight engineer.
John Chase	Butte	Flight instructor, California.
Carl Christensen	Billings	United, flight engineer.
Roger Jones	Helena	Flight instruction, Arizona.
John Marshall	Missoula	Western, flight engineer.
Doug McLaren	Missoula	Flight instructor, Missoula.
Bill McDaniel	Great Falls	Zantop copilot, Detroit.
Blake McDowell	Great Falls	Farming (spraying), Montana.
David Rolczynski	Missoula	Northwest, flight engineer, Seattle.
Jerry Utelhoven	Lewistown	United, flight engineer, New Jersey.

MEMORANDUM

Subject: Registrants in vocational schools from Valley County.

To: Mr. John Goff, First Security Bank, Glasgow, Mont.

1. According to actual count of registrants there are over 200 boys between the ages of 18 and 26 years taking vocational training in schools in Montana and out of Montana. This count does not include the ones who are married with child/children or the ones who have taken their Armed Forces physicals and are in lower classifications of 4–F and 1–Y.

2. There are so many of the registrants who have enlisted in branches of the Armed Forces who would liked to have had training before they enlisted as with previous training they are assured of further training in the Armed Forces. They are given credit for this training when then do enlist both in pay and rank.

3. There are also many of the boys who do not have the money to pay their board, room and tuition away from home but have voiced the need for a school here for their training. Others have said even if they did pay board and room here it would not cost as much as in the larger cities.

GRACE M. WEST,
Clerk, L.B. No. 53, Glasgow, Mont.
(For the Valley County Board).

MARCH 3, 1967.

Adm. EDGAR H. REEDER, U.S. Navy (Retired),
Chairman, Unemployment Compensation Commission of Montana,
Helena, Mont.

DEAR ADMIRAL REEDER: I was pleased to have the report from Mervin Strickler of my staff, relating to the discussion he had with you during his recent visit to Montana to explore possible uses for Glasgow Air Force Base.

It will be very helpful to us if you can send me details on the very successful Manpower Development and Training Act pilot training program conducted in Helena, Montana, during 1964–65.

Specifically, I would appreciate details including:

(a) Names and addresses of participants—especially where they were from originally and where they are now if at all possible.

(b) Costs of training identified as to planning, instruction, operations, administration.

(c) Employment upon graduation.

(d) Current or most recent employment with an indication of current income by graduate.

Any other information you feel will be helpful will be appreciated.

Very truly yours,

GLASGOW AIR FORCE BASE.

[From the Great Falls Tribune, Apr. 12, 1967]

HEALTH WORKER SHORTAGE GROWS CRITICAL

WASHINGTON.—The country is now short about 600,000 health workers, ranging from doctors and dentists to hospital orderlies and nurses' aides. Because more and more people are requiring medical care which is becoming more and more complex, the shortage is likely to become more acute unless a remedy is found soon.

Perhaps the most crucial shortage is among doctors. Recent government statistics show a national need for 40,000 to 60,000 more physicians, most of them pediatricians. There were 288,000 doctors in the country in 1965. By 1975, the country will need 385,000.

The inordinate cost of a medical education, requiring more than 10 years after high school, has tended to keep talented but less well-off students from becoming doctors.

"Unless you're rich, medical school cost is prohibitive," a physician and former medical school official now with the Public Health Service told Congressional Quarterly.

There are other shortages nearly as critical. The country will need to train an estimated 320,000 more nurses, 40,000 more dentists and 700,000 more workers in allied health fields to meet the needs of 1975. This means graduating an average of 100,000 total health workers each year compared with the 75,000 going into the health professions each year between 1960 and 1965.

In recent years, the government has helped needy students with a number of loan and scholarship programs.

Students in schools of medicine, dentistry, osteopthy, pharmacy, podiatry, optometry and surgical chiropody are eligible for loans of up to $2,500 per year under the provisions of the Health Professions Educational Assistance Amendments of 1965 and the Allied Health Professions Personnel Training Act of 1966. The loans are repayable over a 10-year period at 3 per cent interest beginning three years after graduation. Up to 50 percent of the loan can be canceled if the student practices in designated "shortage areas" after graduation. The government was scheduled to spend an estimated $25.3 million on these loans to about 22,000 students during fiscal 1967.

Under another program, nursing students are eligible for loans of up to $1,000 per year with the same repayment provisions as those for health professions students. Nurses also can have 50 per cent of their loan forgiven if they work in a public or nonprofit institution after graduation. In fiscal 1967 the government was scheduled to spend an estimated $12.7 million on loans to about 17,000 nursing students.

Scholarships of up to $2,500 are available for needy students in medicine, osteopathy, dentistry and pharmacy. An estimated 2,000 of these students were scheduled to receive federal scholarships in fiscal 1967 costing the government about $4 million. President Johnson's fiscal 1968 budget calls for these figures to be doubled.

Nursing students can receive scholarship grants of up to $800. In fiscal 1967, 1,200 nursing students were to receive $750,000 worth of government grants.

A number of other loan, scholarship and stipend programs are available to needy students in such fields as physical therapy, rehabilitation medicine and nursing, speech pathology and audiology, prosthetics and orthotics and medical library science.

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